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ABSTRACT

This issue of the journal includes these papers on contrastive linguistics: "Contrastive Patholinguistics: The Acquisition of English Grammatical Morphemes by German Dyslexics in a Foreign-Language Teaching Context" (Udo O. H. Jung); "Contrastive Pragmatics" (Marie-Louise Liebe-Harkort); "On Questions in English and Swedish" (Kay Wikberg); "On Contrasting the Sentence Stress" (Aleksander Szwedek); "At--A Typically English Preposition" (Hubert Cuyckens); "A Contrastive Analysis of English 'Some' and 'Any' and Their Hungarian Equivalents" (Eva H. Stephanides); "Parameters of Linguistic Stress: An Experimental Contrastive Study" (Wieslaw Awedyk); "The Use of Ergative Verbs by German Learners of English. A Pilot Study into Interlanguage" (Werner Hullen); and "English in Speech and Writing: A Project Report" (Anna-Brita Stenstrom). (MSE)

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CONTRASTIVE PATHOLINGUISTICS
THE ACQUSIITION OF ENGLISH GRAMMATICAL MORPHEMES BY GERMAN DYSLEXICS IN A FOREIGN-LANGUAGE TEACHING CONTEXT[1]

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1. Introduction

In referring, albeit in a footnote, to "traditional interdisciplinary barriers" Crystal, Fletcher and Garman (1976 : 23) remark that the "subject of language disability is of interest to many groups — clinicians, mother-tongue teachers, and foreign-language teachers, in particular". One could not agree more with them. However, the *T* (their abbreviation for therapist or teacher) will search in vain the subject indices of Ingram (1976), Crystal, Fletcher and Garman (1976) or Crystal (1979) for instances of one of the many quasi-synonyms for dyslexia or dyslexia itself. Neither (congenital) word-blindness or legasthenia, strephosymbolia or (specific) reading disability, to name only the better-known, are mentioned. And yet, the originators of the authoritative *Language Assessment, Remediation and Screening Procedure* (LARSP) would most probably agree that, if dyslexia (the term) did not already exist it would have to be invented. A disease, an estimated 25 million Americans suffer from according to TIME Magazine (September 6, 1982; sometimes the right figure is based not on actual count, but on what the public is willing to believe), must have a name. And even if the above figure was rejected or higher-ranking sources were called in, the evidence found there is enough to disturb the complacency of many an educator: "Estimates (sic) of their (the dyslexics') number vary considerably and range up to 10—15 percent of all school children" (Brown 1979 : VI). In the Federal Republic of Germany, where the state ministers of education between 1972 and 1976 issued decrees

[1] This paper was first presented at the 18th International Conference on Polish-English Contrastive Linguistics held in Błażejewko, 2—4 December 1982. In the revised version, I have attempted to work in the valuable comments made on the occasion by William Lee, Waldemar Marton, David Michaels, and Werner Winter. I should also like to thank Goethe-Institute Munich for a generous travel grant.

concerning the recognition (and diagnosis by implication) as well as the treatment of dyslexic children (cf. Dummer 1977b and Heyse 1976), up to 30 percent of some (not all!) school populations have been found (cf. HIBS 1979) to be affected by *Leserechtschreibschwäche* (reading and writing weakness), as the phenomenon is called here. Here as elsewhere (the situation in Argentina, Australia, Austria, Belgium, Canada, China, Czechoslovakia, Denmark, Finland, Great Britain, Hungary, Ireland, The Netherlands, Norway, Rhodesia (Zimbabwe), South Africa and the United States is described in Tarnopol and Tarnopol (1976)) dyslexia has become a serious problem since the time it has entered public consciousness. This language disability has attracted its detractors (Schlee 1976; Sirch 1975; Spitta 1977) and defenders (Levinson 1980; Vellutino 1979). It definitely deserves the attention of those who are paid by society to solve problems besetting it and to protect it from the machinations of mountebanks who have at their command plenty of panaceas against all kinds of diseases which they have first talked into being.

2. Dyslexia: Past and Present

The history of research on dyslexia from the vantage point of modern linguistics has yet to be written. Recently, Sylvia Farnham-Diggory (1978 : 22 —51) and Mcdonald Critchley (1973 : 6—11) have both covered the ground, and they have given us informative and readable accounts of the subject matter as it appears to educationist and neurologist respectively. The German-speaking public may be referred to W. Böck (1975) for an equally dependable treatment. Without doing injustice to any of them, all three authors can be described as being in fundamental agreement with the "inventor" of dyslexia (W. P. Morgan), a British medical doctor, who in November 1896 published the case history of a 14-year old boy. Using the doctor's own words, the case of Percy F. can be stated in the following way: "He has always been a bright and intelligent boy, quick at games, and in no way inferior to others of his age. His great difficulty has been — and is now — his inability to learn to read. This inability is so remarkable, and so pronounced, that I have no doubt it is due to some congenital defect."

Since those early days, case history has been piled upon case history, but, if the truth must be told, little progress has been made in nearly a hundred years of research. The orthodox school of thought still subscribes to a theory of dyslexia which is characterized by ten tenets:

1. The patients are of, at least, normal intelligence. More often than not, dyslexia is coupled with a special gift for, say, mathematics. Percy F. was fond of arithmetic, he told Dr. Morgan.
2. The male sex is more strongly afflicted by this illness. Girls find themselves underrepresented in the statistics of those researchers who keep tabs on dyslexia (cf. Klasen 1971).

3. The familial occurrence of dyslexia is noted by most researchers. Dyslexia is handed down from generation to generation (cf. Hallgren 1950).
4. Although psychogenic explanations are occasionally brought into play (cf. Trempler 1976; Grüttner 1980), neurologically inspired theories of dyslexia exclude irregularities in the mother-child relationship or sibling rivalry as possible causes.
5. Dyslexia extends into adulthood. The patients' brains mature only very slowly.
6. Brain lesions, however, do not play a part in the etiology. At best, so-called minimal cerebral dysfunctions can be detected. They are rated as epiphenomena however.
7. The dyslexics' peripheral perceptors, their eyes and ears are fully intact.
8. The patients' schooling has been normal. Irregular attendance schedules, prolonged illnesses or frequent changes in teaching staff must be ruled out as possible causes.
9. Dyslexia is not related to social class. Theoretically, upper, middle, and lower classes stand in equal danger of being afflicted (cf., however, Niemeyer 1974).
10. and most important: Dyslexics give themselves away by characteristic mistakes. Letter rotations (*lion* becomes *loin*, *saw* turns into *was*) are the hallmark of dyslexia (cf. Schenk-Danzinger 1975). Pringle Morgan's patient displayed them: "In writing his own name he made a mistake, putting "Precy" for "Percy", and he did not notice the mistake until his attention was called to it more than once" (Morgan 1896 : 1378).

In 1925, Samuel T. Orton, an American, came forward with an explanation for the reversals, which the neurologists of our own days are inclined to call an "over-simple hypothesis". But since they also agree that "the underlying notion of imperfect cerebral dominance is still acceptable today" (Critchley 1973 : 66), a brief outline of the causes of Orton's *strephosymbolia* will be given. Orton believed that three types of cortical tissue distributed over both hemispheres — visual perceptive (1), visual recognitive (2), and visual associative (3) — were involved in reading and writing.

Brain lesions, he knew, of the first two layers in either left or right hemisphere did not interfere with performance. Lesions in the visual associative cortical cells of the right hemisphere were of no consequence either. Left hemisphere lesions of the visual associative field on the other hand always resulted in the loss of the ability to read. Orton concluded that the left hemisphere was all important and that a child had to learn to suppress identical information stored, he thought, *mirrorwise* in the right hemisphere. If the left hemisphere failed in performing this function, images from the right hemisphere would enter the processing of graphic signs (via the bridge) and interfere with correct output: reversals and incorrect serial order of letters would result.

In a large-scale experiment with 1402 male and female second graders from Vienna schools, the Austrian authority on dyslexia, Lotte Schenk-Danzinger, was able to isolate a group of 55 pupils (3.9 percent) who showed a disproportionately big increase of reversals as againts other error types (Schenk-Danzinger 1975). However, the concept of letter rotations and the instrument used by Schenk-Danzinger to elicit readings have been heavily criticized lately for various reasons and by various people with particular emphasis on the assumed underlying reasons for the reversals (Angermaier 1974; Valtin 1972b). When the special detector (Schenk-Danzinger's "Wiener Leseprobe") was put aside and the dyslexic students were given a relatively non-artificial running-on text, viz. a poem, even Schenk-Danzinger (1975 : 128) had to admit that only one in six reading mistakes/errors was a reversal. To put it the other way round: the elementary school teacher whose job it is to impart functional literacy to her wards may be excused for ignoring the one reversal and concentrating her efforts on the remaining six mistakes; she should not be blamed for this. With the reversal as the hallmark of dyslexia gone, researchers soon started to investigate hitherto neglected or minor causes of dyslexia, insufficient auditory discrimination, for instance. In his masterly *Dyslexia: theory and research* Frank R. Vellutino has recently reviewed the available literature. He concludes that "it seems quite likely that given normal intelligence, intact visual and auditory acuity, and adequate exposure to and investment in reading as a process, success in learning to read depends, first, upon *linguistic ability in general* and second, upon the *ability to make one's knowledge of language explicit*. By extension, deficiencies in any aspect of linguistic functioning will presumably result in difficulty in reading" (Vellutino 1979 : 342 f.).

It looks as if dyslexia, other than the name might imply, is not restricted to one skill, i.e. reading, alone. The German researcher, who equates *Dyslexie* or *Legasthenie* with Leserecht*schreib*schwäche, has chosen a nomenclature which is closer to the diagnostic practices of researchers around the world. In diagnosing a dyslexic the diagnostician will, as a rule, administer the WISC first and follow this up with a standardized *writing* test. If a discrepancy is observed between the patient's (average to high) IQ and his results in the writing test, the boy (they will be a majority!), often left-handed or ambidextrous, is pronounced a dyslexic (see also Valtin 1980). At least two of the four skills which constitute knowledge of a language are thus implicated in dyslexia. (The relationship between reading and writing is discussed in Frith and Frith 1980). A closer look at the practices of diagnosticians soon reveals that, in their opinion, yet another skill, *listening*, must be a poorly developed property in the dyslexic's verbal repertory. Auditory discrimination tests, like the Wepman, are used to pick out the poor listener (see Vellutino (1979 : 291—305) for a detailed discussion). Poor listeners are considered

high-risk children prone to become dyslexics. And on top of this, in 1975 Susan Ann Vogel came up with the theory that the *syntactic* abilities of dyslexic children may be as deficient as their reading, writing and listening abilities (cf. Vogel 1975). Beset by such mighty handicaps, how could the dyslexic child ever hope to fully master the intricacies of his mother tongue, let alone the acquisition of a second or foreign language? In a critical appraisal of the Vogel study (cf. Jung 1981) I believe I have shown that the results obtained and reported by Vogel can be questioned, to say the least. But it would not be surprising at all if Vogel was partly right, because some of the (rather complex) syntactic structures which testers like to include in their batteries are acquired relatively late in life (cf. Chomsky 1969). A testee, who does not know how to read and who consequently has no access to booklore cannot be expected to know the syntactic structures which prevail in the written code.

3. Studying the foreign-language performance of language-impaired children

To my knowledge, only very few people (Bruck 1982; Doernberg 1978; Jung 1980; Reisener 1978a and b) have so far attempted to assess the *foreign-language* skills of language-impaired children. But it is a worthwhile study of a subgroup of learners who, in the Federal Republic of Germany at least, cannot be prevented from attending secondary schools, where foreign languages are obligatory. It is true, more often than not, that language-impaired children do not go on to secondary schools, dyslexics do. Here we have the rare case of a language disability which can be studied against the background, not only of the first but of a second language also.

Studying the verbal behaviour of dyslexics, who try to master a second language, may help to finally settle the long-standing debate on whether letter rotations are not, after all, the veritable "trademark" of the defect, for reversals do occur in great numbers during the early stages of learning to write in a foreign language. An adherent of the orthodox school of thought would predict such a (re)occurrence of letter rotations on the basis of the neurological malfunctioning which supposedly underlies this phenomenon. He would predict the (re)occurrence of a *dyslexia in the foreign language*, no matter what that language may be, as long as the writing system is alphabetical. A researcher who subscribed to the theory that dyslexia was based on faulty auditory discrimination would probably expect the dyslexic to transfer this inability to the second-language learning process; he would predict a *foreign-language dyslexia* with the phonological system of the mother tongue acting as the independent variable. If my own (informal) classroom observations can be trusted the reversals, which occur in great numbers at the beginning of foreign-language instruction, disappear again from the writings of normal students after about two or three months. If the diagnostic

judgement of those whose job it is to "certify" dyslexic students can also be trusted, they do not differ from normal students with regard to letter rotations at the end of a two-year period of instruction in English as a foreign language (Jung 1980a). But more rigorous research is probably needed here.

Mother-tongue reading instruction may also profit from such research, the teaching of reading in a foreign language usually resorting to a whole-word approach as opposed to phonics. Without being taught explicity, the whole-word approach forces students to deduce phoneme-to-grapheme correspondence rules by themselves, which they do as a rule. The (German) English-as-a-foreign-language learner, who pronounces the word ⟨gauge⟩ as /ˈgɔ : dʒ/ has abstracted a rule based on previous learning: daughter, haughty, laundry, Maud, Paul, saucer and taught are pronounced that way. If the dyslexic can do this there is no need to insist on teaching him to how *speak* his mother tongue in primary school, which is what the reading teacher normally does when she insists on spelling pronunciation in order to bring about a close fit of spoken and written language. Simply juxtaposing the written and the spoken word, instead of prescribing artificial rules, which force the student to "hear" an /r/ at the end of German /ˈkɔfə/ (=Koffer (luggage)) because the ⟨r⟩ shows up in the written code, and to pronounce it, too, may be a better way to engage the language learning (linguo-cognitive) capacity of the student. Söderbergh (cf. her 1982 survey article) has successfully experimented with this technique using both normal and language-disabled subjects.

Studying the (foreign-) language learning acquisitional mechanisms of dyslexic students may also serve as a convenient check against the claims put forward by both researchers on dyslexia and second-language acquisition. It can always be claimed that the syntactic deficiencies of dyslexic students are a consequence of their lacking motivation to read books, which contain the syntactic patterns the tests test. If dyslexia is characterized by a syntactic disability this should carry over into second and foreign-language learning. After two years of teaching, with books read at home playing only a minimal role, if they play any role at all, syntactic deviations from the norm, provided by the learning curves of normal students, should become noticeable. If they do, they will be welcomed as corroborative evidence. They will also shed some light on the question of universal acquisitional strategies, which has been raised lately in connection with the search for an integrated view of language acquisition (cf. Wode 1981 : 279—294). The advantage of looking at the English-language proficiency of both normal and dyslexic German students therefore consists in the fact that both parties start from par, as it were. If, after a while, the foreign-language output of the dyslexics begins to deviate from that of their peers it can be assumed with some certainty that this is so for endogenous reasons. Their failure, if failure is their fate, can this time

only with difficulty be laid at the teacher's door. It might be a good thing, therefore, to accept dyslexia as the real thing, to dispense with disbelief and to see where it leads one.

4. The DEA-Project

In the fall of 1978, a pilot project was launched by the Hessian Institute for Educational Planning and School Development (HIBS) in conjunction with the Federal Ministry of Education and Science (BMBW) under the title "Didaktische Differenzierung im englischen Anfangsunterricht (DEA), unter besonderer Berücksichtigung lernschwacher Schüler" (Didactic differentiation in beginners' English classes with particular reference to slow learners). Several comprehensive schools from the Frankfurt area took part in the experiment, which was scheduled to last for two years. The project leader had developed special teaching materials (cf. Mohr 1979) which were assembled in units, each designed to cover a certain number of teaching hours. The overall aim of the project was to test two hypotheses:

1. Can the attrition rate of normal foreign-language classes be diminished in favour of the slow learners if the ordinary structural progression of the teaching materials is replaced by a notional/functional progression similar to the Council of Europe's *Treshold Level* (*cf.* van Ek 1980)?
2. Can small-group work help to defuse the difficulties encountered by slow learners and children with behaviour problems?

The teachers involved in the project met regularly for two-day conferences with the project leader to discuss and, where necessary or possible, to improve on the teaching materials. On two of these occasions, in April 1979 after 143 teaching hours, when the project was still in its first year and in April 1980, not long before its end, they collaborated to construct two informal tests designed to cover the first three and the last three units respectively. These tests were administered to the roughly 350 participating students on two consecutive days.

4.1 The Tests

The tests consisted of two halves. The first half, administered on the first day, aimed at assessing the classical (structural) areas of 'Spelling', 'Grammar' and 'Vocabulary' (mostly) by means of the multiple choice technique. If a label has to be stuck on them, *discrete-point* would serve the purpose.

The second half, however, was specially designed to tap the students' communicative competence. In a few words or with the help of pictures a context of situation was described in German and the task before the students was formulated. To give an example:

Schreibe auf Englisch, was die Personen sagen.
Die deutschen Sätze in Klammern helfen Dir.
(Write in English what the persons say. The German sentences in brackets will help you.)
Susan und Peter treffen Tom auf der Straße.
(Susan and Peter meet Tom in the street.)
Susan:

(begrüßt Tom)
(greets Tom[1])

To these 'utterance initiators' the students responded by inserting in writing the linguistic forms which they considered to be appropriate. In the above case, most students reacted with a simple and stereotype "Hello, Tom". But there were other and more complex situations which generated a considerable amount of linguistic variation.

4.2 The Research Population

A team of 10 German teachers, 9 female and 1 male, a third of whom, it must be pointed out, had not been certified as teachers of English, instructed a total of 358 fifth-graders in 12 classes. The mean age of these students was 10.89 years. In the judgement of the reading specialists at the participating schools, forty-two or 13.1 per cent of the student population were dyslexic.

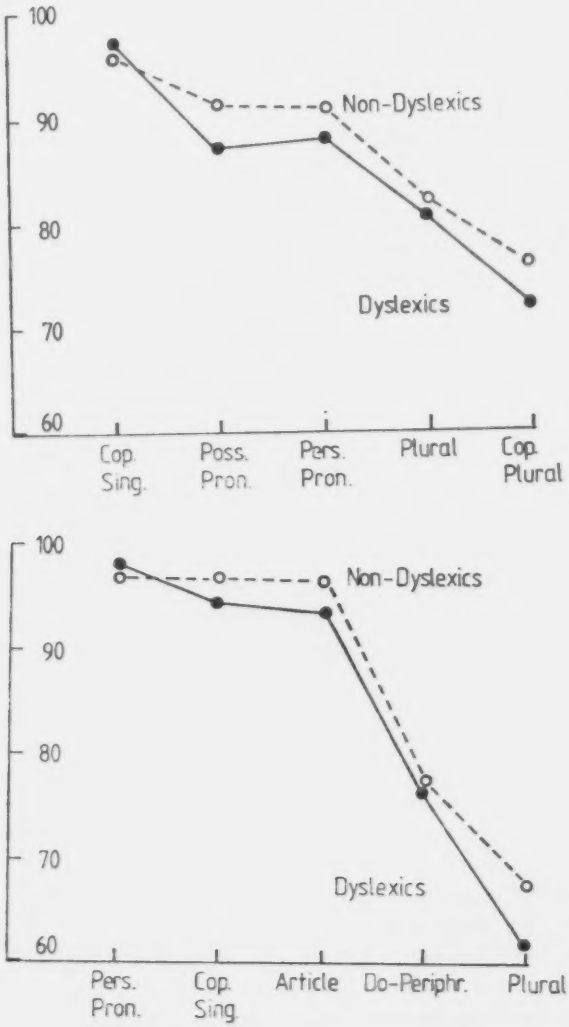
The test papers of 31 of these dyslexics were secured in April 1979 and compared with those of a group of 31 non-dyslexics selected at random. A year later, when the second informal test was administered, 27 of the dyslexics (attrition rate 12.9 per cent) and 26 of the normal students (attrition rate 16.1 per cent) were still available, so that they could be compared a second time.

5. Data Processing

The question as to how the more than 1000 utterances should be processed was decided in favour of the Dulay/Burt-technique (cf. Burt and Dulay 1980), in spite of the fact that it has lately met with some well-grounded criticism (Wode et al. 1978). In an (admittedly unsatisfactory) manner data collected at one point in time can and on occasion do mirror developmental stages of language acquisition, especially if large numbers of students contribute to the error pool (cf. Jung 1980). Different students may represent a whole gamut of developmental stages, even though their linguistic performance was assessed at the same point in time.

[1] The English translations are printed here for the benefit of the reader who is not well-versed in German. They did not appear in the test.

In our case, only grammatical morphemes in obligatory position were counted. (It may be added in parentheses that the number of morphemes supplied in non-obligatory positions was negligible.) Two points were awarded for each and every morpheme correctly supplied, one point for an incorrect morpheme and nil points when the required morpheme was missing. From the raw data group scores were then computed and converted into learning curves (see Figures 1 and 2).



6. Results

Figures 1 and 2 summarize the results of the two tests administered in 1979 and in 1980 respectively. As can be seen, the two sets of learning curves display a fair amount of similarity, even parallelism. Some differences, however, are worth noting:

1. The early learning curves are not as steep as the later ones. This may be due to a relatively high degree of overlearning by the students across all grammar points before the first test was administered.
2. The steepness of the later curves is the result of a "clash" between three grammar points with a high degree of stabilization (Cop. sing.; Pers. pron.; Article) and two others (Do-periphrasis; Plural) which one would not consider properly acquired yet.

Unfortunately, the informal tests did not yield more than five processable grammatical morphemes. What is more, the test authors did not construct their tests with comparability in mind. The plural of nouns, however, is represented in both tests, and it promises to be of interest to the discussion centering on language *acquisition* phenomena which may or may not surface in foreign-language *learning* contexts. The rest of this paper will therefore be devoted to a discussion of this problem.

7. Discussion

7.1 Language Learning vs. Language Acquisition

A distinction has been drawn between (conscious) language *learning* and (informal, subconscious) language *acquisition* (Felix 1978, Gingras 1978, Krashen 1981). It is based on the observation that, no matter what the source language may be (Dulay and Burt 1974), or whether the acquirers are children or adults (Burt and Dulay (1980 : 277 ff.)) and no matter what response mode (speech or writing) is used (Burt and Dulay (1980 : 283 ff.); Freedman 1981), a "natural order" of grammatical morphemes is regularly found in the linguistic output of second language learners. On occasion, however, this natural order can be disturbed (Larsen—Freeman 1975). Stephen Krashen has speculated that this may be "due to the intrusion of the conscious grammar" (Krashen 1978 : 4). Conscious grammar typically obtrudes itself in a foreign-language teaching/learning situation, and Stephen Krashen was quick to speculate again, viz. that "it would not be at all surprising if foreign language students show a greater learning effect, manifested by more "unnatural orders"" (Krashen 1978 : 6). Ours must have been the situation Stephen Krashen had in mind: German students of English as a foreign language being tested with an instrument designed to direct their attention to the communicative, not

the formal linguistic components of the verbal exchanges which the test simulated. This then is the rationale behind the data collection and evaluation processes described in previous paragraphs. We set out to test the question whether language acquisition strategies which are generated by an individual who acquires a second language, because as a human being he is uniquely "wired" to do so, may not surface again in the foreign-language classroom. If there is such a thing as a language acquisition device (LAD) which starts operating as soon as it is confronted with the primary linguistic data in an organism's environment, it is only natural that scholars should begin to wonder if such a language-specific cognitive device can be "switched off" by the teacher who enters the classroom. What is the difference — one may ask — between the linguistic data put before a student in a second-language acquisition and in a foreign-language learning situation to justify such an assumption? The fact that the student in a foreign-language is classroom is presented with an orderly progression of language input instead of being immersed in a language bath (as in natural second language acquisition) can hardly be adduced as a valid reason for categorically separating the two. The likelihood, therefore, of second-language *acquisition* strategies surfacing from under several layers of teacher-imposed *learning* strategies cannot be dismissed off-hand.

7.1.2. Testing the Resurgence Hypothesis: Naturalistic Acquisition of English Noun Plurals

To test the Resurgence-Hypothesis it is important to know what the sequence of plural allomorphs is under natural conditions. According to Henning Wode who observed and recorded his four German as L1 speaking children acquiring English as L2 in a Californian town, the sequence of allomorphs is /—ə/, /—z/ and /—əz/. He also noticed that his subjects sometimes left the stems uninflected. They reverted to the use of zero morphemes when they were confronted with unfamiliar lexical items or unfamiliar tasks, such as tests, and he speculates that this is a "non-language specific, non-age dependent universal strategy which is followed in cases of uncertainty" (Wode 1981 : 266). As to language-specific differences, Wode observes that his children were late in incorporating stems in —er /—ə ~ ə^{r}/ and /θ/. This might well be a consequence of their L1 German; an argument might be made out in favour of the contrastive hypothesis. German nouns ending in —*er* (*Mutter, Ritter, Müller, Gewitter*, etc.) do not normally take a flexive, but either form the plural via Umlaut or leave the stem uninflected. Kari Sajavaara, who has also recommended that "second-language studies must be replicated with foreign-language learners" (Sajavaara 1982 : 151) is probably right when he says that the "value of CA (i.e. contrastive analysis) is small or nil in environments

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of optimal acquisition, but is grows in correlation with the distance to such a situation ..." (Sajavaara 1982 : 154). We should therefore take a closer look at our classroom data to see if a German-English structural contrast can be said to lie at the base of part of our learning curves.

7.1.3 Contrastive Hypothesis versus Language Acquisition

There were at least five occasions in the communicative part of the second informal test where one would expect the students to use plural forms (see Table 1). A closer look at the students' responses is likely to reveal whether their linguistic behaviour is uniform across all five instances or whether there are significant differences between, say utterance No. 1 and 4. Table 2 gives the details. As ours was a written test, Table 2 foresees only three possibilities: The plural marker (s) is either present or absent; in addition students may attempt to get around the problem by avoiding the use of nouns in the plural. Utterance 4 is a case in point. The majority of students put down *At 12.12 hrs* to avoid the longer *At twelve minutes past twelve*.

TABLE 1

Number of utterance	Initiator	Expected Response
(1)	A sagt, daß er Hamster mag. (A says he likes hamsters)	I like hamster*s*.
(2)	B sagt, daß es genau 4 Minuten vor acht ist. (B says that it is exactly four minutes to eight)	It is exactly four minute*s* to eight.
(3)	B wiederholt die Uhrzeit (B repeats time)	It is four minute*s* to eight.
(4)	R.O. (=Railway Officer) sagt: Um 12.12 Uhr. (R.O. says: At 12.12)	At twelve minute*s* past twelve.
(5)	Lady: (verlangt zwei Fahrkarten nach Dover) (Lady: asks for two tickets to Dover)	Two ticket*s* to Dover, please.

TABLE 2

	Dyslexics (N=27)			Non-dyslexics (N=26)		
Number of Utterance	percentage ø morph	percentage s-morph	percentage avoidance	percentage ø morph	percentage s-morph	percentage avoidance
1	74.1	11.1	14.8	73.1	3.8	23.1
2	14.8	59.3	25.9	11.5	80.1	7.7
3	14.8	55.5	29.6	11.5	80.1	7.7
4	3.7	29.6	66.6	3.8	34.6	61.6
5	37.0	51.9	11.1	34.6	50.0	15.3
Means	28.9	41.5	29.6	26.9	49.7	23.1

Even a superficial inspection of Table 2 reveals that the linguistic behaviour of our subjects is not uniform across all five utterances. Whereas utterance initiator No. 1 generates a very high degree of faulty output with only a moderate amount of avoidance behaviour, utterance No. 4 behaves inversely: the rate of avoidance behaviour rises dramatically to assume the highest percentage of all the cells in this row. Note, however, that dyslexics and non-dyslexics do not differ in this respect. It seems to be the case that dyslexics and non-dyslexics alike are influenced by the fact that the German lexeme *Hamster* (utterance No. 1) does not have an overtly marked plural. They seem to transfer their L1 habits to the plural formation of English or, to put it somewhat differently, they have not far advanced in integrating the pattern to which the word *hamster* belongs into the system of English plural formation, although in other cases, as evidenced by utterance No. 5, they have proceeded somewhat beyond the chance (50 per cent) level. It may be noted at this point that, although plural formation usually ranks high in all (second language) morpheme acquisition studies (for a summary cf. Krashen 1981 : 51—63), Howard Jackson (1982) found Punjabi learners of English as a second language deficient in this respect. I have had similar (oral) reports from English teachers of immigrant children in the Leeds/Bradford area. And Punjabi does have overt plural marking; zero morphemes are the exception.

Manfred Raupach (personal communication) has pointed out to me that the word *ticket*, which occurs in utterance No. 5 as the lexeme to be pluralized, has been incorporated into the lexicon of many if not all Germans. The plural, in both English and German, is *T/tickets*, and one would expect the students to score well above average therefore. For some reason or other

they do not. It must be said in this connection that 50 per cent correct answers after almost two years of study is close to failure from a teaching point of view. There are two instances, however, when at least the non-dyslexics achieve a high degree of correctness, viz. utterances 2 and 3, where 3 is a mere repetition of 2. I have, on another occasion (cf. Jung 1982c), interpreted this fact as a case of rote learning. The students could have learnt these utterances by heart. This, by the way, would be perfectly in keeping with the way they were taught. The students were presented with language forms (Redemittel) to be able to perform speech acts. The reason for the failure of the dyslexics, who score at least 20 per cent below the standard (set by the non-dyslexics) is a matter of dispute and speculation. It cannot be explained simply as a matter of negligence or oversight (part of what it means to be a dyslexic in common parlance), because such an argument would have to apply to all five utterances in an equal manner. Negligence would seem to be a pervasive quality which does not normally apply selectively. What is it that accords special status to these two sentences for the dyslexics, one third of whom circumvent the problem? I have no solution to offer on the basis of the available data.[3] Although data collected at one point in time can occasionally mirror a whole gamut of developmental stages, it would be important here to know what went before and what came after the second test was administered. We must therefore let the case rest here and wait for data of a longitudinal nature to supplement the corpus.

Summary

To sum up then: If our data are not an artefact of the test instrument it can be said with some confidence that there is no reason to discard the resurgence hypothesis. Some of the phenomena observed in natural second language acquisition processes, notably Wode's rule (jokingly formulated as "If in doubt leave it out"), do reoccur in the foreign language classroom (cf. also Felix 1977a, 1977b). At the same time, it must be admitted that there is clear evidence for the influence exerted by the students' L1. German students, be they handicapped or not, sometimes fall back on or are on occasion hindered by their L1 German when they attempt to learn English as a foreign language in a classroom setting. In an attempt to reconcile the dichotomy of "language transfer" and "creative construction" Helmut Zobl (1982) has recently argued that in cases of *zero contrast* (the L2 possesses a category that is absent from the learner's L1) the pace of acquisition of any L2 can be considerably slowed down. Zobl does not say whether this applies

[3] A t-test was run on the whole set of 53 correct plural responses. It was found (df=51; t=1.492) that the null hypothesis cannot be rejected on the basis of the data.

only in cases of *total* zero contrast or whether the same rule accounts for cases like the one before us where we have only *partial* zero contrast, but it may well be that the principle applies here as there. Anyway, Zobl's complexity constraint is compatible with our data.

On the whole it can be said that dyslexic and nondyslexic students do not differ fundamentally from one another. There is an overall, near-perfect fit in their learning curves, with the dyslexics generally lagging behind some, but not much. Below the surface, however, certain differences can be observed which need further probing. However, if ours is a valid picture of what can be achieved in two years time, if for the purposes of the experiment the project organizers have not systematically reduced the learning load, then it can be said with no small amount of certainty that dyslexic students are not incapacitated from learning foreign languages: they measure up to their peers. If their verbal behaviour ever deserved to be called pathologic, the dyslexics have either sufficiently recovered in the meantime or there must be differences between them and the normal students which the test instruments used here were incapable of registering.

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CONTRASTIVE PRAGMATICS

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While the direct introduction of contrastive studies into the classroom is generally recognized as folly, and it is agreed that a contrastive study must undergo amplification before it can be applied (cf. Fisiak 1980 : 11), there seems to be a gray area between the contrastive study of the linguist and the practical materials of the teacher. Work with two completely unrelated languages spoken by people of widely divergent cultures can highten awareness of divergent language usage. It then becomes obvious that, with the production of a contrastive study, the linguist's job is not finished.

When Hall (1973 : 38) refers to language as "one of the dominant threads in all cultures", this implies that language is a part of culture, not a separate entity. In the field of language teaching, the consequences of this are seldom dealt with openly. On the one hand, children soon learn that what they say is less important than how they say it in the language class. On the other hand, under the pretext that the sentences of the lesson serve only to demonstrate grammatical rules, German children are given the expression "die guten Eltern" to practice German declension (cf. Roehler 1970 : 81). Obviously the culture is being taught along with the language.

When a foreign language is the subject of study, culture will be taught as well, but which culture? In "Sally, Dick, and Jane at Lukachukai" (Evvard et al. (1974 : 25—28)), the inappropriateness of the transfer of urban middle class cultural content to the Navajo Indian Reservation is shown clearly. Problems stem not only from the fact that many of the objects (such as street lights and skyscrapers) are outside of the children's experience, but that the whole culture, along with its unspoken assumptions, is completely different from what the child knows. Dealing with a foreign culture in a foreign language, the child is doubly disadvantaged, because he often has no way to find out what it is that he doesn't know, and sometimes doesn't even suspect that

there *is* something he doesn't know. An Apache child dealing with the sentence "the dog jumped on the sofa" (presuming he can understand the words) would have a completely different picture in his mind than the non-Apache writers of the materials — for the child, since dogs do not belong in houses, but sofas are often put outside, the scene takes place out of doors. Thus it would seem that the culture of the producer of the materials is the basis, but it is not quite so simple. If the producer knows something of the culture of those who are to use the materials, he may be willing to incorporate this knowledge into the materials — perhaps, for example, by providing the sentence above with an illustration of a dog on a sofa in front of a typical house. The result, unfortunately, is a tutti-frutti culture—true neither to the one nor to the other, for when cultural differences are not known, the producer will fall back on what he knows best, his own culture.

A solution is possible if, instead of ignoring or avoiding these problems, they are made part of the content of the course. If the learners are made aware of the differences between the cultures, if they learn to compare the meanings as well as the grammatical forms, they will understand both better.

The proposed solution is not new — Lado included the comparison of cultures as an important part of cross-cultural linguistics in 1957. But as he and others have pointed out, this is not easy, and will take time. The examples he then gave seemed to point to culture as something related only indirectly to language (e.g. bull fights or patterns of sleeping habits). If, however, language is seen as a part of culture, it becomes obvious that the linguist cannot compare languages without comparing the cultures in which they are spoken.

Experience gained while working with the White Mountain Apache Indians to develop a bilingual bicultural program[1] illustrates some important categories in the analysis of cross-cultural communication. For the purposes of this paper, it must suffice to trace some examples of divergent language usage (including the use of silence) as part of the socialization patterns of the culture, along with those organizational features that are important in the classroom. The following categories are neither exhaustive nor postulates for communication analysis in all cultures, but they offer themselves as a starting point for a better understanding of Apache methods of communication.

Greetings, including introductions, and leave-takings, present among the Apache a very different picture than that which is often used in the first

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lessons of language text-books. As Basso (1971 : 151—161) has pointed out, in many cases greetings are expressed by silence, and there is no Apache equivalent of "hello" that is used in the same fashion. Even telephone conversations are often begun with silence, to allow the person called to adjust to the new activity. Furthermore, since names are regarded as terms of reference and there are many rules regarding their use, a person is not greeted by calling him by name (cf. Kluckhohn 1962 : 114 ff), though a relative may be addressed as such: "my sister", "my uncle". In a small group such as the Apaches (there are about 8200 members of the White Mountain Apache Tribe), it is not surprising that people know who even their distant relatives are, and such people, if introduced at all, will be introduced by the term of relationship: "He's my uncle", "She's my sister". But even this is rare, since most people know who the others are unless they have been away for a long time. Whereas introductions are possible, they are infrequent, since it is presumed that those who come together will get to know each other in their own way and will begin to talk to each other if they so desire (cf. Basso 1971 : 153 f). Leave-taking has no specific form, either linguistic or non-linguistic. The greeting, silent though it may be, is a greeting, but when someone decides to leave, he just leaves. He may say something about when he will return, or where he is going, but it is neither necessary nor formalized.

The relationships between people determine in many cases the possibilities and the forms of communication between them. There is a custom of avoidance (for example between mother-in-law and son-in-law), and those who practice this may not talk to each other or even be present in the same room together. In other cases it requires a particularly polite form of speech and the showing of respect. Another example is the joking relationship, which is begun by cross-cousins about the age of puberty (cf. Goodwin 1969 : 205).

Some forms of Apache language usage appear on the surface to be equivalent to the same form in English, and only further observation makes it clear that they are not equivalent. A command in Apache could be better equated with a polite request in English (cf. Liebe-Harkort (1983a) and Liebe-Harkort (1983b)). (There is also an elaborate request ritual which includes the use of the person's name and completely obligates the person thus approached). Another example is the compliment to another person regarding one of their possessions, which must be equated to a request for that object. The other person is under a rather strong obligation to give up the object unless it was given to him by someone else, in which case he will reply "my sister gave it to me".

Other forms are practically missing, such as the use of indirect speech. It may be partly due to the oral tradition of the people that they repeat word for word what another person has said (even if it requires language

switching (cf. Osborn (1974) and Liebe-Harkort (1980))) and partly to their rules of politeness (cf. Liebe-Harkort 1983b). They are also reluctant to advise others of feared negative consequences of that person's intended actions or to ask direct personal questions. And, in fact, conversations are conducted along very different lines of participation and silence.

An analysis of communication within a culture must go beyond this sort of example to make obvious those patterns that must be taken into account in the classroom. The socialization patterns have already taught a child much about what he may or may not talk about and how and with whom he may talk before he enters the classroom, and these rules will operate until he learns new ones. An Apache child, for example, learns patterns of cooperation along lines of kinship — he is taught that he must help his relatives, so seating arrangements in the classroom take on a new meaning. He is taught to avoid eye contact to show respect (which leads frantic non-Apache teachers to think that the children staring out the window are not paying attention).

But much of the socialization of the child can have a more direct effect on how he learns and what strategies can help him to learn more effectively. An Apache child learns that he must not stand out in a group, but must fit in, co-operate. Thus, a teacher who publicly praises a child will find the child anxious never to repeat whatever it was he did that brought about this embarrassing praise. The child has also learned not to try something until he has watched it being done and learned to copy it without making mistakes in public — a very different approach than the "everyone makes mistakes at first, don't worry about it" idea he often finds in the school.

The way information and instruction are presented to an Apache child is also very different from non-Apache methods. Stories form an important part of the Apache teaching process, and the same story is patiently repeated word for word by the parents or elders until the child has understood its meaning and corrected his behaviour. Both the role of repetition and the lack of direct criticism or correction contrast with the normal non-Apache classroom approach.

Work with a minority group that has, in the past, been forced to adopt the language as well as the methods of the dominant society differs in many respects from the more frequent case of learning a foreign language using the mother tongue in local schools taught by members of the same culture. But perhaps the comparison of the organizational categories important in the two cultures of the languages involved can offer a basis that is useful for all contrastive work.

The methods and categories of organization among the White Mountain Apaches are quite different from those of the dominant society around them. They organize feasts lasting four days, in the course of which, without the aid of lists or a supervisor, over four thousand people are fed by one family group.

They organize the teaching of their children so that one thing is taught at a time in great detail and prefer not to cover a variety of similar things briefly. Thus, for example, a book should tell all about one kind of animal, not cover a variety of animals. But comparisons are made along the categories they are accustomed to make. Animals, for example, are organised into groups according to the method of locomotion, not the method of giving birth. Thus, frogs and birds both move through the air and are classed together, while snakes, worms and bugs form another group.

A successful program has been started by some Apaches that is geared towards teaching the children about the differences in the categories and behaviour patterns before the children even begin to learn English. They sort objects according to the Apache category (for example, knives, forks, knitting needles and pencils all belong to a group of objects referred to by one verb (cf. Basso 1968); a book, a ball of yarn, or a piece of cloth would each require a different verb to express the handling of it), and they are then showed how such objects would be grouped in English: Eating implements, handicraft tools and writing instruments, for example. They also discuss how to show respect and politeness in both cultures, and are told that it is all right if they ask questions in the classroom, that it is not impolite when they do it there.

Another feature of such a comparison of categories would include introduction into the native language of certain features that are possible but not traditional. This would help the children understand and be prepared for new activities. For example, while the Apache language has numbers, the idea of repeating the numbers in sequence without reference to specific objects is new. Some things, however, must not be counted (e.g. stars), and the illustrations in the beginning numbers books must take this into account.

While it is very difficult to analyze a culture and recognize in it those differences in categories that are basic, it is often possible to employ an alternate approach. People speak a foreign language with many of the habits of language usage from their native language. This often leads to cross-cultural misunderstanding when the people communicating do not share the same native language. The study of such cross-cultural communication, which N. Enkvist has termed "interactive ethnolinguistics", can provide examples of such transfers as well as a cross check for hypotheses about communication in both cultures.

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ON QUESTIONS IN ENGLISH AND SWEDISH[1]

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1. *Introduction*

Like any other major linguistic unit, questions can be used to exemplify the development in linguistics from formal syntax to semantics, pragmatics and text linguistics. Parallel with this widening view of language today there is an awareness of the difficulty of coping with the growing knowledge within any existing linguistic theory. This should not deter contrastive linguists from investigating this interesting field. In this paper we shall first deal with some general theoretical problems, such as (a) the concept of a 'question', (b) conduciveness, (c) the disjunctive approach, and (d) the performative approach. Second, we shall look more closely at some basic question types in English and Swedish.

1.1 *Theoretical preliminaries*

Questions arise in conversation because of the speaker's need for information (or confirmation, as the case may be) and his/her belief that the hearer can provide that information. Thus, in a Q/A-unit there is a knowledge par (actually representing degrees of ignorance) and a request part. The former is seen in the question in the form of various interrogative devices (wh-words

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[1] The author's dialect is Finland-Swedish. For this paper I have not had access to the whole literature on questions in Swedish. A publication which came to my notice too late was Elisabeth Britt Engdahl, *The syntax and semantics of questions in Swedish*. Ph. D. dissertation, University of Massachusetts, 1980.

question word order, particles), and in the semantic properties of the answer, which have to satisfy the conditions specified by the question. The request part is seen in the illocutionary force of the question and in the actual speaker--hearer interaction. Intonation patterns serve to combine the two parts into communicative units.

In order to be able to ask questions at all, the speaker must have some sort of common ground with the hearer. This *shared* knowledge, often referred to as presuppositions, is another aspect of the knowledge part. For instance, it would not be appropriate for anybody to approach an unknown man in the street and ask "When did you stop beating your wife?"

Answers consisting of a simple *yes* (S *ja*) or *no* (S *nej*) are rather rare in actual conversation because they do not make for communicative interaction on their own except in contexts where the question concerns facts. They are more common as responses to statements, ie in an entirely different function. Similarly answers to wh-Qs are not always what one expects them to be on the basis of the structure of the question. For instance, in

1Q Where's John?	Var är John?[1]
A He's in the bathroom.	Han är i badrummet.
2Q What's John doing?	Vad gör John?
A He's having a bath.	Han badar.

one can easily imagine the answers interchanged in both languages. This is possible because of Grice's well known 'conversational implicatures' (1975 : 43), still another aspect of the knowledge part, but one which lies outside language itself.

The foreign learner of English must learn to distinguish questions from other speech acts, to ask and answer questions. This may involve considerable skills because of the many existing variations of the basic Q/A-patterns, because of politeness phenomena, ways of suggesting shared knowledge, and so on. Questioning-answering mechanisms are extremely important from the very start of language learning and therefore deserve a great deal of attention.

A well recognized property of Q/A-units is the semantic dependence of the question on the answer and vice versa. The analysis of the dependence of the answer on the question has very much focussed on what Bolinger (1957) has called 'conduciveness', the fact that the form of the question signals the speaker's expectations as to the answer, particularly in terms of yes-no-ness. Negative yes-no Qs and tag Qs are typical examples. Special attention has been paid to the role of polarity in questioning-answering systems in different languages (cp Pope 1976 : 118). Some examples adapted

[1] Swedish equivalents will be referred to as (1Q', 2A', etc.).

from Pope's book can be used to illustrate the difference between English and Swedish in this respect:

3Q He went, didn't he?	Han gick (väl) {eller hur / inte sant}?
A1 Yes.	Ja.
A2 No (not at all).	Nej (inte alls).
4Q He didn't go, did he?	Han gick väl inte? Han gick inte, eller hur?
A1 No.	Nej.
A2 Yes, he did.	Jo {han gjorde det / det gjorde han}.
5Q Did he go?	Gick han?
A1 Yes (he did).	Ja (*han gjorde). Ja (det gjorde han).
A2 No (he stayed).	Nej (han stannade)
6Q Didn't he go?	Gick han inte?
A1 No (he didn't).	Nej (det gjorde han inte).
A2 Yes, he did.	Jo (det gjorde han).

(3—4) illustrate the fact that Swedish lacks a syntactic equivalent for the English tags. In (6) Swedish *jo* brings out the positive disagreement strongly enough to allow omission of the following pro-forms; in English, *he did* cannot be dispensed with so easily. Positive disagreement is undoubtedly a major difficulty for the foreign learner of languages where it is lexicalized (cp French *si*, German *doch*). However, when it comes to yes-no-ness generally, it "can have any shade of confirmation that lies across the spectrum from absolute plus to absolute minus" (Bolinger 1978 : 103). As far as the answers are concerned, (4A2'), (5A1'), (6A1') and (6A2') show that the Swedish pro-form *det* is required with the pro-verb *göra*. A detailed analysis of substitution and ellipsis in the two languages would no doubt reveal more contrasts.

In principle a question and its accompanying answer are grammatically separate units whereas they must at some stage be looked upon as one entity at discourse level. Schegloff and Sacks have used the term 'adjacency pair' (1973 : 295). In practice the delimitation of an answer is often quite difficult (Wikberg 1975; Conrad 1978). Thus answers to questions such as *What happened?, What did you do in the 1960's? What did she say?, Why did you become a linguist?* are typically textual in the sense that they can range from a single word to an extensive text.[3] From a contrastive point of view, however, this is mainly a problem of the verbs and possible differences in their selectional features.

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[3] The minimal answer to a *why*-question is a clause. Cp. Fries (1975).

2. *Some descriptive problems*

Two specific descriptive problems deserve some discussion: (i) the disjunctive approach to yes-no Qs, and (ii) the performative approach. Neither can be solved here, but anybody dealing with questions and answers will have to take a stand on these issues.

The problem with the disjunctive deep structure has been raised by Bolinger (1978), who discusses a number of instances where the disjunctive interpretation would be absurd on the grounds that (a) *or not*? is not always a likely continuation of a yes-no question, (b) *if* is a more likely embedder of questions than *whether*, and (c) *if*-clauses carry the rising intonation typical of yes-no Qs. Although Bolinger is to be commended for showing the wide range of uses to which yes-no interrogatives can be put, close examination of his examples shows that they can usually be accounted for in one of the following ways:

A. There is usually something in the non-linguistic context that is conducive to one type of answer rather than another (mostly *yes*, which ensures S (the speaker) that L (the listener) is on an equal footing). (Examples No. 8, 9)

B. The available alternatives are more than two and can be related to an explicit or implicit wh-Q. (Example No. 10)

C. S's intention is primarily another than that of asking, such as inviting, requesting or exclaiming. (Examples No. 7, 11)

We shall here look at Bolinger's first argument only. As an invitation, the negative disjunction in (7) would no doubt be suppressed, but the listener is still free to respond either *Yes, please* or *No, thank you:*

7. Do you want some (fruit) (or not)? (context: in front of S's orange tree)

8. Are you still around (or not)? (context: S is surprised at seeing L)

(8) can be interpreted as an exclamation, or the answer expected is an explanation. In the next example, a serious answer cannot be in the negative:

9. Are you awake (or not)? (context: S shaking L)

Another type involves a suggested answer to a wh-Q:

10. What's the matter? Are you tired (or not)?

The primary question here is the wh-Q, the yes-no being added as a simple alternative which cannot be put in the negative. Finally, (11) does not seem to be meant as a proper question at all since neither *Yes* nor *No* is a very good answer:

11. Are you crazy? Är du tokig? Är du inte klok?

All the instances that Bolinger analyses can be translated into syntactically equivalent sentences in Swedish. That a disjunctive deep structure is a rather crude representation of (7—11) is not surprising in the light of the

contextual parameters, but with clearly open yes-no Qs like (5), it seems to work.

This brings us to the second problem, that of speech acts. Asking is not considered a specific speech act by all linguists. Edmondson (1981 : 195), for instance, classes it as a sort of request. This tallies well with what was said above about questions having a request part. A plausible performative representation of ordinary yes-no Qs would look like this:

12. I request of you (you tell me (whether or not it is the case that S))

It follows that answering is a sort of telling. However, like the disjunctive analysis, (12) is a formula which has to be modified to explain questions which involve an element of expectation. Owing to the difficulty of finding suitable performatives for different types of questions, it seems that both degrees of illocutionary force and degrees of yes-no-ness can be best handled by combined linguistic and pragmatic devices. For contrastive purposes, the *tertium comparationis* will obviously be conditions on the use of interrogative structures (Searle 1969). Such conditions would vary slightly depending on the syntactic structure of the question, but it is likely that they are language universal (cp James 1980 : 124). Indirect speech acts, too, appear to be universal, although there are idiomatic uses in any given language or dialect (Brown and Levinson (1978 : 141 ff.); Riley (1981)).

Although I am here basically concerned with direct speech acts, I feel entitled to present an instance of a difference in the use of indirect speech acts in English and Swedish:

13Q	Do you lock the door?	Låser du dörren?
A1	*OK.	OK. (Det kan jag väl.) (REQUEST)
A2	Yes, every time,	Ja, varje gång. (QUESTION)

According to Sinclair and Coulthard (1975 : 32),

> "An interrogative clause is to be interpreted as a *command to do* if it fulfills all the following conditions: (i) it contains one of the modals *can, could, will* (and sometimes *going to*); (ii) if the subject of the clause is also an addressee; (iii) the predicate describes an action which is physically possible at the time of utterance".

The English example (13Q) does not fulfil condition (i), and, indeed, its interpretation as a command is impossible. In Swedish, however, *Låser du dörren?* can be considered a request or command. In Finland-Swedish it would have a falling intonation and not be particularly polite.

3. *A comparison between English and Swedish*

Not surprisingly, descriptions of questions in English within TGG apply generally to Swedish as well fairly close to surface structure (cp. Ellegård 1971). In the following we shall illustrate both basic similarities and contrasts

in the major types of questions. If we divide questions into yes-no Qs, echo Qs and direct Qs and assign each of these ±-values, we get the following theoretical combinations:

Table 1

	yes-no	echo	direct	Examples:
1	+	−	+	Are you coming? Kommer du?
2	+	−	−	I asked her if she was coming. Jag frågade henne om hon tänkte komma.
3	+	+	+	Am I coming? (in response to (1)) Om jag kommer? (=Frågar du om jag kommer?)
4	+	+	−	You asked her if she was coming? Du frågade henne om hon tänkte komma?
5	−	−	+	Who is coming? Vem kommer?
6	−	−	−	I asked her who was coming. Jag frågade henne vem *som* kom (skulle komma).
7	−	+	+	You asked her what? (in response to (6)) Du frågade henne vad?
8	−	+	−	(hardly occurs)

We shall first look at wh-Qs (types 5—6) and then yes-no Qs (types 1—2). Echo Qs will be ignored in this paper although type 3 shows an interesting contrast between English and Swedish.

3.1 *Wh-questions*

For obvious reasons neither the term 'wh-question' nor 'yes-no question' fits Swedish, but these terms will be used here for convenience. Both languages signal direct wh-Qs by putting the questioned constituent immediately before the finite verb. To achieve this, English requires do-Insertion when the wh-phrase does not function as subject, and when the finite verb is not an Aux, *be* or *have*. In Swedish Subject-Verb-Inversion is obligatory in direct Qs after wh-Movement (14', 15'), but in indirect Qs the inversion rule does not apply (16'):

14Q	*Who(m)* did you meet?	*Vem (vilka)* träffade du?
A	John (and Jane).	John (och Jane).
15Q	*When* do you get up?	*När* stiger du upp?
A	At six.	Klockan sex.
16	I asked you *who(m)* you met.	Jag frågade dig *vem* du träffade.
17	I asked you *who* helped you.	Jag frågade dig *vem som* hjälpte dig.
		*Jag frågade dig *vem* — hjälpte dig.

For Norwegian, which in this respect behaves in the same way as Swedish, Taraldsen postulates the existence of the relative particle *som*, which he says "cooccurs with *hv*-words (N *hvem*=S vem) at some stage in the derivation regardless of the original position of the *hv*-phrase". Then "*som* undergoes the following obligatory rule:

18 som → ø/[COMP X ——] NP X ≠ ø

This rule deletes *som* when the following two conditions are satisfied: (a) *som* precedes NP immediately, and (b) there is some other terminal symbol in COMP". (1978 : 634) The difference between (16') and (17') can be accounted for by condition (a).

Inevitably there are morphological and semantic differences between question words in the two languages. Thus the Swedish adjectival interrogative pronoun *hurudan* can be rendered into English in various ways:

19Q1	*How* is your job?	*Hurudant* är ditt jobb?
Q2	*What* is your job *like?*	
A	It is interesting.	Det är interessant.
20Q	*What kind of* car has he got?	*Hurudan* bil har han? *Vad* har han *för (en)* bil?
A	An old Volvo.	En gammal Volvo.

Questioned prepositional phrases are treated in a similar way in English and Swedish (except where there are lexical differences), ie the prepositions can be left at the end of the interrogative clause, which is their normal position in the spoken language:

21Q1	*What* were you talking *about?*	*Vad* pratade ni *om?*
Q2	*About what* ... talking?	*Om vad* ... ni?
A	*About* all sorts of things.	*Om* ditt och datt.
22Q1	*Where* do you come *from?*	*Var* kommer du *ifrån?*
Q2	*From where* do you come?	*Varifrån* kommer du?
A	(From) Finland.	(Från) Finland.

When it comes to the placing of the prepositional phrase initially, the English version sounds more awkward than the Swedish one (cp James 1980 : 49, who has observed a similar difference between English and German).

In spoken Swedish there is a more complex alternative to examples like (14') and (20'):

23	*Vem var det (som)* du träffade?	(Who was it that you met?)
24	*Vad är det för (en)* bil (som) han har?	(What sort of car is it that he has got?)

Syntactically these constructions are identical to questioned cleft sentences, but according to Thorell they are not necessarily used for emphasis (1977 : §888):

25 Det var X som du träffade → (wh-Movement)
X det var som du träffade → (Subject-Verb-Inversion)
X var det som du träffade → (23)

The effect may actually be the opposite, ie one of softening the abrupt question. If the focus is on *det* in (23—24), the questions refer to situations in which the speaker is or was a participant.[4]

3.2 *Yes-no questions*

The relationship between the basic rules for question formation in English and Swedish can be represented as follows:

Wh-Qs	English	Swedish	
(1)	wh-Movement	(1) wh-Movement	
(2)	Subj-Aux-Inversion	(2) Subj-Verb-Inversion	} *yes-no Qs*
(3)	do-Insertion	(3) —	}

Examples of yes-no Qs have been given in (3—6) and for English in (7—11). The contrast which is displayed above corresponds to a major difficulty for the Swedish learner, ie learning to use *do*.

As far as negative yes-no Qs are concerned, the fundamental conditions on their use in English and Swedish seem to be the same (cp Dušková 1981). Genuine affirmative and negative yes-no Qs have different distributions (Wikberg 1975 : 124—127), and elicit slightly different answers (Szwedek 1982), which applies to both languages.

A dialectal variant which is particularly common in Finland-Swedish is wh-Qs and yes-no Qs with *månne*:[5]

26Q1 Vad *månne* de visar på TV? (I wonder what they are showing on TV?)

Q2 Vad visar de på TV *månne?*

27Q1 Varar det länge *månne?* (I wonder if it will be long?)

Q2 *Månne* det varar länge?

Putting *månne* in clause-initial position is sufficient to make a yes-no Q, whereas if it comes last, Subj-Verb-Inversion must apply.

3.2.1 *Statement questions*

A subtype of yes-no Qs which has been somewhat neglected is the 'declarative' or 'statement' question, as in

28 He went then? Han gick alltså?

29 He didn't go then? Han gick alltså inte?

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[4] A minor type of Q-type mentioned by Svartvik and Sager (1978 : 422) is wh-Qs without a finite verb, which seem to be more acceptable in English than in Swedish (E *What to do?* S *Vad göra?* E *Where to go?* S *Vart gå?*).

[5] Cp. Diderichsen (1979 : 69), who refers to the use of *mon* (S *månne*) as a regular feature of Danish.

It occurs in both languages, and its distinctive characteristic has often been thought to be rising intonation. Thus Thorell (§ 917) points out that without rising intonation, Swedish statement questions "could not be interpreted as questions" (which is not true of the writer's dialect), whereas Hudson mentions in a footnote that statement questions take rising intonation "normally, but not always" (1975 : 13).

As to the other properties of statement questions, Quirk et al. (1972 : 393) mention the non-admissability of *any*-forms and point out that statement questions resemble tag questions with a rising intonation in interrogative force "except for the rather casual tone, which suggests that the speaker takes the answer *yes* (or *no*) as a foregone conclusion". This sort of expectation is confirmed by data on answer types following statement questions (Wikberg 1975 : 132). According to Akmajian et al. (1979 : 190), a statement question seems to occur "in a conversation only if the situation referred to by the question is not a new topic of conversation for either the speaker or hearer: either it has already been mentioned or the overall *context* of the conversation makes it an obvious topic to bring up." Joos also maintains that a statement question "is always anaphoric" (1964 : 59).

It would be beyond the scope of this paper to go into the problem of intonation in any depth. We shall here simply assume that some statement questions overlap with statements in terms of grammatical structure and intonation patterns, and that they can be followed by identical responses. Analysis of the use of statement questions in some English novels (Fowles, *Daniel Martin* (DM); Bradbury, *The History Man* (HM)) suggests that there are contextual and pragmatic factors which may be responsible for the choice of statement questions rather than ordinary yes-no questions. Such factors could be:

A. Reference to knowledge and opinions which S already has and which S wants L to confirm (cp Oleksy's interpretation of tag Qs (1977 : 108)):

31 *And you've got a lovely hide-out now?* Where you were born? Caro's told us about it. (DM 183—184)

An inverted yes-no question would be inappropriate here.

B. S wants to have his inference from the immediate linguistic or non-linguistic context confirmed (the question often opens with *you mean, you think*, etc.):

32. someone must have acted over the summer, while we were all safely out of sight. *You mean Marvin?* asks Moira. I suppose, says Howard. (HM 59)

C. The utterance is what Labov has called a B-event, ie one concerning L rather than S (Labov 1971 : 208).

This is a matter of preference. Bolinger's examples (7—11) sound even more strange if they are turned into declarative questions with first-person singular subjects.

D. The question echoes a previous utterance:

33 I can help you ... *You can help me, Felicity?* he asks. (HM 124)

Statement questions in Swedish seem to have similar contextual properties, but syntactically they are more varied because they can be combined with Topicalization:

34Q1	Du känner honom?	You know him?
Q2	Honom känner du?	?Him you know?
35Q1	Du känner inte honom?	You don't know him?
Q2	Honom känner du inte?	?Him you don't know?
Q3	Inte känner du honom?	*Not you know him?

4. *Conclusions*

This exploratory analysis will have demonstrated some of the basic similarities and differences between question formation in English and Swedish. A more coherent linguistic model would however be needed to account for both the linguistic and the pragmatic facts.

If contrastive analysis is to become something more than a sport for the initiated, it may be worth considering applications of contrastive analysis in this area to language teaching. Questioning and answering are traditionally part and parcel of language teaching, but the communicative approach gives the learners opportunities to take on more varied roles in conversational interaction. Once the initial difficulties with question formation and answering have been overcome, there remain to learn and practice the complications due to modal verbs, expressions of politeness, and accompanying intonation patterns. For syllabus design and the grading of communicative tasks more contrastive analysis would be valuable in the field of modality in particular, since it is so closely tied up with indirect speech acts.

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ON CONTRASTING THE SENTENCE STRESS

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1. In view of the fact that intonation is an obligatory element of sentence structure (as an element of discourse), an element that is necessarily present in every utterance, it would hardly seem indispensable to justify studies of it. Rather it would seem natural, if not obvious, to investigate all its aspects both in the integrative and modular manner. Ignoring intonation renders any language description necessarily inadequate at best. The awareness of this fact has been expressed time and again by linguists, but as Pilch remarks: "In practice, intonation is NOT treated as an integrating part of discourse, but as an afterthought, as something added (after the event) to a text that has first been made without it. The analyst may tack it on to the text in the guise of a few extra rules if he cares, but he usually does not. This treatment may be good enough for the "well-formed" literary text which is put on paper to be available for repetition. It is certainly inadequate for the (not necessarily so well-formed) text of ordinary discourse which is unique (i.e. not available for repetition) and oral (i.e. not put on paper). Generally speaking, the text does not exist apart from its intonation — as little as it exists apart from its syntax or semantics". (1976 : 305).

This obviously correct view is further supported by the fact that syntagmatic relations, as Lyons (1969) shows on word stress, need not be linear. If there are syntagmatic relations that need not be linear (sequential), then it means that they must be simultaneous (=suprasegmental). This is exactly the nature of such phenomena as word stress and one of the most prominent elements of intonation, the sentence stress. Equally important as intonation, particularly in discourse analysis, the sentence stress has been given relatively little attention and consideration in linguistic discussions, especially it seems in the area of Contrastive Linguistics.

2. Though the fundamental assumptions of Contrastive Analyses are well known, it seems appropriate to repeat some of them in the light of the most recent research. As Krzeszowski puts it, tertium comparationis is "the concept that lies at the heart of any comparison (eo ipso at the heart of CA)" (1980 : 1). It is quite natural that given the variety of levels of linguistic analysis and also the variety of models of linguistic description, we should also have a variety of types of *tertium comparationis*. Thus, as Krzeszowski correctly notes "different TCs are used for comparisons in lexicology, in phonology and in syntax" (1980 : 1). Obvious as this claim is, what remains to be determined is the specific types of tertium comparationis, a question that depends on more general, theoretical assumptions concerning the model of linguistic description and levels of analysis within the language. But the basic goal remains the same: to find the common denominator, the common content, the *tertium comparationis*. This of course, does not mean that form cannot or should not be the subject of comparison (cf. Krzeszowski 1980 : 4). But form is important only to the extent that it expresses (conveys) content, the ultimate goal of communication. The only question is the degree and type of equivalence. And this, it seems, can be envisaged as a scale with total equivalence (=congruence) at one end, and total unrelatedness (both formal and functional) at the other end. Thus it makes sense to talk in CA about a specific type of equivalence, depending on the goal of description. Another type of equivalence may or may not appear at the same time in a particular case as an accompanying feature, increasing or reducing similarity.
The present paper is meant to be a brief and general study of the sentence stress, on the basis of more specific studies and remarks concerning the sentence stress in English, Polish and some other languages. As suggested by the general procedures of Contrastive Analysis, we will be concerned with both the form of the sentence stress and its function(s).

3. Research on the substance of stress has been quite rich in the United States, much less so in Poland. In the United States research on the phonetic correlates of accent (sentence stress) in English goes back to studies by Fry (1955, 1958), Mol and Uhlenbeck (1956) and Bolinger (1958), later summarized in Lehiste (1970). For Polish the main work was written in 1968 by Jassem, Morton and Steffen-Batóg. It has been established that in languages like English and Polish (and also a few others) the ways in which stress is realized and perceived are (with certain statistical differences, e.g. duration is more frequent as stress marker in Polish than in English): changing pitch, duration, and intensity (cf. Lehiste (1970), Hymen (1978) and a number of other studies).

It has also been found that phonetic correlates are the same for word

stress and for sentence stress. For example, Lehiste (1970) describes emphatic stress (on the basis of Ivić and Lehiste's (1969) research on Serbo-Croatian) in terms of a "larger than life" realization of an idealized form of the emphasized word: "a wider range of fundamental frequency, increased differences in intensity between the accented and unaccented syllables, increased duration, and a more clearly defined fundamental frequency movement" (Lehiste 1970 : 151). What is interesting about the sentence stress in its normal appearance is, as Lehiste puts it, that "it does not change the meaning of any lexical item, but it increases the relative prominence of one of the lexical items" (1970 : 150). This brings us directly (or almost directly) to the well known question of scope. No doubt more a problem of content, it has also been investigated from the phonetic point of view. Pakosz set out "to discover the ways in which native speakers [of English] signal and infer a broad and a narrow range of focus, if such delimitation of scope of focus can indeed be implemented prosodically" (1981 : 87). Given the limited nature of the data, the results of the investigation cannot be conclusive, but they seem to point out to a lack of prosodic signals delimiting the scope of focus. As Pakosz himself notes: "Coming now to the question of the possible prosodic marking of the boundary line between the contextually bound and the non-bound sentence parts, it may be said that, in general, the analysis of the data revealed the existence of definite prosodic demarcation only in a limited number of positions within the examined sentences; with some elements it was impossible to ascertain whether they fell within the scope of focus or not on the basis of phonetic cues only. One such position involved the predicate, where the prosodic behaviour of the verb was invariably ambiguous" (1981 : 90). Finally Pakosz concludes: "... essentially, the topic – focus distinction can be manifested prosodically through the differential use of the systems of tone, pitch range, tempo and loudness. The exact boundary line between the contextually bound and the non-bound (focused) parts of sentences, however, is less clearly marked, and in some positions it is virtually impossible to indicate its precise placement by means of phonetic cues only". (1981 : 92). The difficulty in the interpretation of scope is also shown in the discussions of focus by, for example, Chomsky (1971) and Jackendoff (1972). Chomsky (1971 : 200 ff.) defines focus in terms of intonation in the following way: the focus is the phrase containing the intonation center, i.e. the main stress. The phrase containing the intonation center could be any constituent which contains it, from the morpheme to the entire phrase or sentence. In other words, there are several possible foci in one sentence structure. The uncertainty as to the scope of focus expressed by Chomsky and Jackendoff shows quite clearly that sentence stress cannot be used as a signal of what is called focus (i.e. the focused section of the sentence). As Lehiste put it, it "increases the

relative prominence of one of the lexical items" (1970 : 100) only. Thus from a purely formal point of view the only clearly identifiable element of focus is the one which is stressed. With such a formally easily identifiable element it sohuld not be difficult to determine its function.

4. One of the first mentions of the function of the sentence stress is to be found in Barsov's (1783—88) *Rossijskaja grammatika*. The phenomena involved are not explicitly described and named, but Barsov's interpretation of structures with various stress positions clearly shows that he realized what its function is (cf. Szwedek 1982a). But in the last fifty years or so, discussion of the function(s) of the sentence stress has been most intimately connected with the Prague School's Functional Sentence Perspective. Without going into details, linguists seem to agree that the sentence stress marks the new information section (cf. Daneš (1967), Halliday (1967), or Chomsky (1971) and Jackendoff (1972) quoted above, and Szwedek (1976)). One of the fundamental questions that has to be answered is what constitutes new information. The problem has not been examined in great depth yet, and no satisfactory solution has been proposed but it is possible to outline what seem to be the basic types of "newness". In the first place there is referential newness when a new referent is introduced into the world of the text. The concept of "the world of the text" is very important as distinguished from the world at large; there are cases where the referent is known (e.g. the so called unique nouns: the sun, the moon) from the real world point of view, and yet when introduced into a given text for the first time gets the newness marking of the sentence stress (cf. the discussion in Szwedek (1976 : 75 ff.)). In languages like English, this coincidence is expressed by placing the sentence stress on the element with the definite article. However, in articleless languages like Polish this kind of coincidence does not occur.

Another type of newness described in a number of works (cf. Akmajian and Jackendoff (1970), Szwedek (1980)) can be called functional newness in which referents are known from the preceding context, but their grammatical function in the sequence clause is different than in the preceding clause, as in Akmajian and Jackendoff's (1970) example

(1) John hit Bill and then George hit HIM.

where the stress signals that HIM contains new information in relation to some already given referent. Strictly speaking it signals that it is NOT the referent with the same function in the preceeding context that HIM corefers with. The only interpretation that is left within the text is that HIM refers to the other referent, i.e. John and the stress signals that its function is different from the original function.

A third type of newness is connected with the so called contrastive (emphatic) stress, and could be called contrastive or emphatic newness. As

I argued elsewhere (Szwedek 1983) no matter what we call the function of emphatic stress, it does signal new information with respect to the preceding context, e.g.

(2) A. John ate a FISH yesterday.
B. No! John CAUGHT a fish yesterday.

where in A. under normal circumstances *a fish* is the new information. However, normal given/new information relations are suspended (hence *a fish* repeated in the sequence sentence) by emphatic stress until the sentence is corrected (this kind of emphasis is sometimes called corrective, cf. Enkvist 1980). Whether any further taxonomy and specification of emphatic stress is necessary or justified (cf. Enkvist's 1980 distinction of 'emphatic', 'corrective' and 'marked information' focus) is still an open question (see Szwedek 1983).

5. Research discussed in section 3 of the present paper clearly shows that normally only one element in the sentence is identifiable as bearing the sentence stress, and no prosodic cues indicate the range over which the meaning signalled by it extends. The indeterminacy of the scope of focus is also shown in the various possibilities of interpretation of Jackendoff's (1972) example (which he quotes after Chomsky 1971):

(3) (6.13) Was it an ex-convict with a red SHIRT that he was warned to look out for?

where focus can be chosen as any of the following phrases:

(an) ex-convict with a red shirt,
with a red shirt,
a red shirt,
shirt

As Jackendoff (1972) notes: "Corresponding to these choices of focus are the following "natural" responses:

(4) (6.17) No, it was an AUTOMOBILE salesman...
(5) (6.31) No, it was an ex-convict wearing DUNGEREES...
(6) (6.32) No, it was an ex-convict with a CARNATION...
(7) (6.18) No, it was an ex-convict with a red TIE..."

Information focus, as Quirk et al. (1972 : 940) note, may extend beyond a phrase, as their example clearly shows:

(8) [What's on today?] NEW ⌜We're going to the RACES.⌝ [5]

(9) [What are we doing today?] We're NEW ⌜going to the RACES.⌝ [6]

(10) [Where are we going today?] We're going NEW ⌜to the RACES.⌝ [7]

We could add that similar interpretation can be applied for Polish. For example

NEW

(11) [Co dziś w programie?] [Idziemy na wyścigi.]
(What today in program) (Go-we on races)

NEW

(12) [Co dziś robimy?] [Idziemy na wyścigi.]
(What today do-we) (Go-we on races)

NEW

(13) [Dokąd dziś idziemy?] Idziemy [na wyścigi.]
(Where today go-we) (Go-we on races)

The lack of difference between (11) and (12) can be explained by the lack of the subject pronouns. On the other hand, however, (8) and (9) are open to another interpretation, I think. The question in (8) is clearly addressed to the people who answer the question as "we". The question does not mean "What's on in the cinemas today?" or "What's on in the theatres today?" or "What's on in the world today?" but is clearly, in the given situation, directed to the addressee. Therefore, I would interpret the questions in (8) and (9) and their respective answers as equivalent.

6. What we eventually arrive at can be summarized for both English and Polish as follows:

a) the sentence stress signals that the element on which it falls contains new information,
b) being new, this piece of information is context independent,
c) the element under the sentence stress is the only marked unit in the sentence,
d) the interpretation of the rest of the sentence in terms of given/new information depends on the context (=unmarked),
e) thus the thematic structure (distribution of given/new information) can be diagrammatically presented as follows:

FORM	unmarked (context dependent)		marked by stress (context independent)
MEANING	given (recoverable)	new (nonrecoverable)	new

The only stable elements are unmarked-given and marked-new. As examples (10) and (13) show the unmarked-new element is not a necessary part of sentence structure.

7. If the form and the meaning of the sentence stress seem to be the same, or at the worst similar in the languages compared, we have to ask then whether

there is anything else left for comparison that would relate to the sentence stress.

It has to be kept in mind, and it has I think too often escaped linguists' attention, that sentence stress like word stress enters into syntagmatic relations (cf. Lyons 1969 : 76) with elements of the segmental structure. Since sentence stress is a text forming (cohesive) element, then naturally the primary objective of linguistic investigation should be its interrelation and interaction with other text forming elements, such as, for example, word order, definitization (including pronominalization) and ellipsis. It is obvious that a change in those relations and interactions will necessarily change the relation of this particular sentence within a given context. A question to be answered is whether a change of one of these elements will make the sentence only less acceptable in the given context, or whether, without necessarily breaking communication, it will also change the meaning of the text. In the former case we might perhaps arrive at a scale of textual fit (to use Enkvist's 1980 term). In the latter case we would have to conclude that a text is determined to the extent that a change of any of its elements mentioned here brings about a change in meaning; which in turn brings us back to the question of meaning, the fundamental question of any linguistic studies, more theoretical like Contrastive Analysis, or more practical like translation.

But the complexity of the problem, the complexity of the structure of texts with their numerous elements and relations, does not promise an easy and early solution.

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AT – A TYPICALLY ENGLISH PREPOSITION*

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0. *Introduction – goals*

This paper presents a contrastive analysis of a (small) part of the prepositional system expressing spatial relations in English and Polish. In particular, I will (i) consider the question of the semantic analysis of the English preposition 'at' expressing a spatial relation (henceforth, the spatial preposition (SpP) 'at') and (ii) compare and contrast these findings with data about the Polish equivalent(s) of 'at'.

In general, I will argue that there is no close correspondence between the English 'at' and its Polish translation(s), as there would be for the English prepositions 'in' and 'on' (in Polish, 'w' respectively 'na'). In other words, the semantic distinctions made by the English language user that elicit the use of 'at' are not made by the Polish speaker.

The present paper will be structured as follows: I will first present a definition of SpP's and sketch the theoretical framework of my analysis. Thereafter, I will define and analyze 'at' and contrast this analysis with the corresponding part of the Polish SpP-system.

1. *Spatial prepositions defined*

Spatial prepositions express how two entities relate to each other in space. In other words, these SpP's describe a relation between an ordered pair of

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arguments x and y in which the SpP indicates the location of an entity x with respect to an entity y, or better with respect to the place referred to by the entity y. As for their notation, SpP's will be represented as a two-place predicate R (x, y) where

x = the located entity
y = the place of location
R = the relation specified by the SpP.

I am aware that there is also a SpP indicating a relation between an ordered triplet of arguments, viz. 'between' and a SpP indicating a relation between an entity and a set of entities, viz. 'among'. Since these two prepositions are only a small subset of the entire set of SpP's and since I will mainly be focussing on 'at', I will henceforth describe SpP's as expressing the spatial relation between two entities.

'At' belongs to the series of *static* SpP's: it expresses a static rather than a dynamic relation, that is, it indicates a static position rather than movement into a particular direction.

2. *Theoretical framework of the analysis of SpP's*

2.1. *A framework for lexical semantics*

In what follows, I will shortly sketch my views on word meaning (or lexical semantics), and in so doing, I hope to provide a theoretical framework for the (lexical) semantic analysis of SpP's.[1]

Received views on word meaning (the paradigm case is Katz and Fodor (1963)) are based on the idea that the definition of a word or lexical item consists of a set of *semantic features* or semantic components such that a given object is aptly labelled by the word just when it possesses the properties labelled by each feature in the definition. This view, commonly called 'componential analysis' (Fillmore (1975) calls it more disparagingly 'a checklist theory of word meaning'), holds that each lexical item consists of a number of features that amount to a set of necessary and sufficient conditions which a thing must satisfy in order to be an instance of the category labelled by the lexical item. These features nicely distinguish between instance and non-instance. Applicability of a word is a matter of 'yes' or 'no'.

By contrast, prototypical views of word meaning try to account for the fact that semantic categories have blurry edges or that the applicability of a word is very often a matter of degree. In this view, the meaning of a lexical item no longer consists in a set of necessary and sufficient conditions, but it

[1] For a detailed discussion of my ideas on lexical semantics, I refer the reader to Cuyckens (1982 a, b).

consists in a *prototype*. Rosch (1973, 1977) posits that for each lexicalized category, the language user possesses a prototypical example, i.e. a prototype, an ideal example of a category (consisting of a set of typical properties), which serves as a mental point of reference to determine whether a particular object can be referred to by means of that lexical item. As such, the meaning of a lexical item is described as a prototypical or *core meaning*, from which a number of deviant meanings may extend.

Componential analysis and prototype semantics are not incompatible in that the principles underlying componential analysis can be applied to the notion prototype. Indeed, we can consider a prototype as an unanalyzed concept from which a number of *prototypical inferences* depart (instead of analytic entailments, as in traditional (i. e. Katz and Fodor (1963)) componential analysis). In Cuyckens (1982b), I called this 'convergence' between componential analysis and prototype semantics a system of 'inferential word semantics'.

It is within this system of inferential word semantics that I want to analyze the semantic structure of SpP's. In sum, SpP's will be analyzed componentially, i.e. by describing their meaning in terms of a number of semantic components and at the same time, this componential semantic analysis of SpP's will be analyzed in terms of the notion prototype.

2.2. *The relational character of SpP's*

A second pillar of the theoretical framework for SpP-analysis deals with the relational character of SpP's. Before going into this, it is necessary to introduce the distinction between *setting* and *relational* SpP's.[3] Therefore, consider sentence (1).

(1) The apple is *in* the bowl.

Sentences such as (1) in which a setting SpP occurs can be paraphrased as (1')

(1') The bowl is the place where the apple is located.

In these types of sentences, there exists a binary relation between the entity x (i.c. 'the apple') and the place referred to as y (i.c. 'the bowl'). A setting SpP indicates that x or the situation/action of x is situated precisely where y is situated.

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[3] These terms were initially introduced in Dutch by Klooster, Verkuyl and Luif (1973) and were translated in English by Van Langendonck (1978). Unfortunately, the term 'relational' has a technical meaning (in contrast to 'setting') and a non-technical meaning in the phrase 'the relational character of SpP's'.

By contrast, sentences such as (2), in which a relational SpP occurs cannot be paraphrased as (2') but must be paraphrased as (2''):

(2) The man is in front of the gate.
(2') *The gate is the place where the man is situated.
(2'') The place where the man is situated is located in front of the place referred to as the gate.

In these types of sentences, there exists a ternary relation between the entity x (i.e. 'the man'), the place referred to by y (i.e. 'the gate') and the actual locale of x.

Unlike for setting SpP's where the place referred to as y coincides with the place taken by x, relational SpP's do not display this coincidence. In other words, if we state that setting SpP's describe the spatial relation between the (situation/action of the) entity x and the place of x, which is in fact the place taken by the entity y, relational SpP's have nothing to say about the relation between the entity x and the place taken by x. They are only concerned with the spatial relation between the entity x and the place referred to as y, which is located elsewhere.

In section 1., SpP's were defined as expressing a *relationship* between a located entity x and a place of location y. The relational character of relational SpP's is quite evident: relational SpP's indicate the spatial relation of an entity x with respect to a place of location, referred to by an entity y. In quite a number of studies on SpP's, the relational character of setting SpP's is insufficiently emphasized (e.g. Quirk, et al. (1972), Clark (1973)). Although these authors correctly emphasize the role of the argument y in selecting a particular setting SpP (as such, 'in' would be selected when y denotes a volume or area), their semantic characterization of setting SpP's is not incorrect, but insufficient. As I already stated, setting SpP's describe a binary *relation* between the (action/situation of the) entity x and the place of location y, specifying that the entity x is situated precisely where the entity referred to as y is located. This information is formalized in (3)

(3) PLACE (x, y) or INCL (x, REGION(y)).

3. *Analysis of 'at'*

3.0. *Preliminaries*

In the foregoing pages, I have sketched a framework for the analysis of SpP's. Along these lines, I will now investigate the *componential* semantic analysis of the *prototypical* spatial *relation* expressed by 'at'. A large section of this paper will thus be taken by the discussion of 'at' in English. In section 4., I will contrast and compare my findings about 'at' with data from Polish.

3.1. *Existing semantic analyses of 'at' — problems*

Some of the best known descriptions of 'at' to date are those by Bennett, Cooper, Leech and Lindkvist. These semantic descriptions range from Bennett's very concise characterization of 'at' up to Linkvist's very lengthy and detailed discussion.

Bennett (1975) simply defines 'at' as "locative y", Cooper (1968) and Leech (1969) respectively as "x is near or in y" and "x is contiguous or juxtaposed to the place of y, where the dimensionality of y is not significant". Although these analyses are not wrong, they are insufficient. Consider the following sentences.

(4) The man *at* the wall.
(5) The man *at* the table.
(6) Meet me *at* the post office.
(7) Meet me *at* the Market Place.
(8) They put up camps *at* strategic points.
(9) *The man *at* the living room.

From these examples, it would appear that 'at' indicates

(i) proximity (cf. (4) and (5));
(ii) proximity or coincidence (cf. (6) and (7)).
(iii) coincidence (cf. (8));

As a first approximation of the semantic analysis of 'at', I take the terms 'coincidence' and 'proximity' to be intuitively clear. A more formal definition will follow later.

Leech's definition fails to characterize 'at' in terms of (ii) and (iii); Cooper's characterization is defective with respect to (ii).[8] Bennett's definition also leaves us at a loss, because, general as it is, it fails to explain why for instance 'x at y' can be taken to mean 'x in y' (to use Cooper's terminology) in (6), whereas in (9), it cannot. Yet, both occurrences of 'at' in (6) and (9) are perfectly characterizable as 'locative y'. I will also argue that 'at' has a general meaning, but there is more to the story than what Bennett has told us.

Lindkvist's (1968) account differs from the previous ones in that it provides a very detailed picture of all the possible uses of the SpP 'at'. As a result of his craving for detail, the picture Lindkvist presents is sometimes rather unsystematic. Roughly, he distinguishes four meanings of the SpP 'at' (each meaning is further divided still):

"a. location in close proximity to an object;
b. location within an area or space or on a surface apprehended as a point;
c. relative position;

[8] I take 'or' in Cooper's definition as an exclusive or.

d. location close to or within a body, surface or area thought of as being used to serve a certain purpose;" (Lindkvist 1968 : 129).

'Relative position' is described as indicating a point in a whole, series or continuity. So, on close inspection, Lindkvist's meanings a. through c. (we will deal with d. later) approximate meanings (i) and (ii).[4]

However, I stated that it 'would appear' that 'at' displays the three meanings (i) through (iii). This characterization of 'at' in terms of (i) through (iii), and hence also Lindkvist's account (and *a fortiori* Cooper's and *Leech's* accounts) fail to recognize an important fact about the semantics of 'at'. Indeed, it does not indicate

I. why 'at' can *only* indicate proximity in (4) and (5);
II. why 'at' indicates proximity or coincidence in (6) and (7);
III. why 'at' can *only* indicate coincidence in (8) and
IV. why 'at' cannot be used at all in (9).

A description of 'at' in terms of proximity, coincidence, or proximity V coincidence[5] may be descriptively adequate, but it is certainly not explanatorily adequate, because it misses an essential point about the semantics of 'at', which I have negatively characterized in terms of I. — IV. and which I will positively characterize as follows. 'At' expresses a very general meaning from which more specific meanings (i) — (iii) or Lindkvist's a. — c. (and also d., as will be shown later) can be derived and which simultaneously solves problems I. — IV. But, I do not want to run ahead of myself, so I will first of all define 'at'.

3.2. *'at' defined*

In order to reach a definition of 'at', I will first shortly sketch the semantic structure of the other setting SpP's 'in' and 'on'.[6] 'In' is analyzed as

(10) IN (x, y) → PLACE (x, y)
→ INCL (x, ENCLOSING AREA(y)).

'On' is analyzed as

(11) ON (x, y) → PLACE (x, y)
→ INCL (x, SURFACE(y)).

I realize that there is some overlap between the PLACE-component and the

[4] The fact that 'at' may indicate proximity or coincidence (meaning (iii)) is recognized in Lindkvist (1978 : 53).

[5] To avoid confusion, I am using the logical operator 'V' to represent 'or' in meaning (iii).

[6] For the semantic analysis of 'in' and 'on', I am drawing on Cuyckens (1981; 1982c).

second component of both definitions (PLACE(x, y) was equated in (3) with INCL (x, REGION(y))), but PLACE(x, y) is explicitly represented to indicate that both 'in' and 'on' are setting SpP's.

How does this discussion of 'in' and 'on' relate to our attempt to define 'at'? In the analysis of 'in' and 'on', the physical properties of the entity y, viz. 'enclosing area' and 'surface' are of enormous importance. These selection criteria for 'in' and 'on' are considered irrelevant for the analysis of 'at'. The place of location y, in so far as it has any dimensions, is considered a *dimensionless* entity, often regarded as a point of recognition or a landmark. 'At' simply associates an entity x with the place referred to by the entity y, thought of as a point, so that y is the place where x is situated. Hence, the only relevant component in the semantic analysis of 'at' is the PLACE-component. In other words, 'at' expresses a PLACE-relation with an entity y, thought of as a point or dimensionless entity:

(12) AT(x, y) → PLACE(x, POINT(y)).

Recall that in (3), we further defined PLACE(x, y) as INCL (x, REGION(y)). In keeping with the fact that we want to consider INCL (x, REGION(y)) as a perfect equivalent of PLACE(x, y), REGION(y) must be defined as that place for which holds that x is precisely situated there. Now, as AT(x, y) was defined as PLACE(x, POINT(y)), an equivalent definition of 'at' is

(13) AT(x, y) → INCL (x, REGION(POINT(y))).

I claim that the SpP 'at' is semantically a very narrow concept: it simply states that the (action/situation of the) entity x is included in the region of the place referred to by the entity y which is apprehended as a point. So, in fact, 'at' has a very abstract or general meaning. In other words, the 'at'--phrase is simply indefinite with respect to the physical properties (e.g. surface, enclosing area) of the place of location y. In sum, 'at' may only be assigned the general meaning represented in (13).

In the following section, we will argue that such semantic characterizations as proximity/coincidence/proximity V coincidence can only arise depending on the context in which 'at' occurs.

3.3. *'at' further specified*

In this section, I will investigate how this general definition of 'at' gives rise to more specific semantic distinctions, *depending on the context in which 'at' occurs*. This context of 'at' is mostly the y-phrase (the place of location). So, I claim that such semantic distinctions as proximity/coincidence/proximity V coincidence are not part of the semantics of 'at' *stricto sensu*, but they are part of the semantic characterization of the sentence or context in which

'at' occurs. In following this general strategy, that is assigning a general meaning to 'at', combined with a further investigation of the context of 'at' so as to derive further semantic specifications, I hope to solve problems I. through IV. (section 3.1.) and simultaneously provide an explanatorily adequate account of the semantic analysis of 'at'.

3.3.1. *problems I. – II.*

In this section, I want to investigate why the general meaning of 'at' is sometimes realized as 'proximity' as in (4) and (5), and sometimes as 'proximity V coincidence' as in (6) and (7). Recall that the description of 'at' in terms of (i) through (iii) (section 3.1.) could not answer this problem.

(4) The man *at* the wall.
(5) The man *at* the table.
(6) Meet me *at* the post office.
(7) Meet me *at* the Market Place.

The general semantic definition of 'at' stipulates that 'at' is lexicalized when x is simply located on the same locale as the entity y, considered as a point. In other words, 'at' is lexicalized when x enters into an INCL-relation with REGION (POINT(y)).

Theoretically speaking, this REGION(y) covers the points taken by the entity y itself, as well as points outside y. However, in sentence (6), the area inside and outside the post office is covered by 'at' whereas in (4), only the area beside the wall is covered by 'at'. As I already stated, in order to solve this problem, we must turn our attention to the context of 'at', in particular to the place of location y.

As a general principle, I want to propose the following .Whenever a language user considers the entity y as dimensionless, as a point, and when he wants to lexicalize an INCL-relation between x and the place referred to as the entity y (considered as a point), which is part of REGION(y), then he may resort to 'at', unless – and this happens quite often – the entity y resists being apprehended as a point when it enters into this INCL-relation because the physical properties of y are conceptually dominant. In this case, the speaker must resort to such SpP's as 'in' and 'on'.

If the entity y resists being apprehended as a point when *y itself* enters into an INCL-relation with x, due to the physical properties of y, y may however be apprehended as a point when the *remaining* points outside or beside y (which also belong to REGION(y)) enter into an INCL-relation with x. At this point, there is no more INCL-relation between x and y itself.

I will illustrate this principle by means of (14)

(14) He is sitting *at* his rocking chair.

In this sentence, the entity y, viz. 'rocking chair', always defines an enclosing area (the function of a rocking chair is to 'enclose' x). Therefore, the entity y can never be apprehended as a point when the speaker wants to consider an INCL-relation with y itself. However, an INCL-relation with the points *beside* y is perfectly possible, while y itself is considered as a point. I think this explains why 'at' can only indicate proximity in sentences such as (14): only the points belonging to REGION(y) that are situated beside y can enter into an INCL-relation with x when y is considered as a point. The space taken by the entity y itself is automatically considered as an enclosing area when it enters into an INCL-relation with x.

We should still answer the question in what instances the physical properties of y are 'conceptually dominant', so that they preclude the entity y from being apprehended as a point. Consider also sentences (15) and (16)

(15) The man *at* the closet.
(16) He is *at* his bed.

In sentences (14) through (16), the function of the entity y triggers off the label 'enclosing area'. 'A closet' in (15) is functionally an enclosing area in that it is a container for clothes; a 'rocking chair' in (14) functions as an enclosing area for the person located in it. The same goes for 'his bed' in (16). In all these cases, the entity y is automatically considered as an enclosing area, thus precluding the INCL-relation between x and the entity y itself to be covered by 'at'. The entity y may be considered as a point when x enters into an INCL-relation with the remaining points of REGION(y), i.e. the points beside y. Therefore, if 'at' is used in these sentences, it can only be further specified as expressing 'proximity'.

In the same vein, we can explain why 'at' in (5) only has a proximity reading. The entity y, viz. 'table', has the prominent function of being a supporting surface for objects. For that reason, an INCL-relation between the entity y itself and x must be lexicalized as 'on'. In keeping with the general principle discussed above, 'at' only retains a proximity reading.

Not only the function of the entity y may immediately coin y as an enclosing area. When the entity y enters into a part-whole (be it inherent or accidental) relation with x, then y is automatically considered as an enclosing area, so that 'at' cannot be used to indicate this INCL-relation between x and the entity y itself. 'At' may however be used to indicate the INCL--relation between x and the points beside y, when y is apprehended as a point, so that sentences such as (4) only have a proximity reading.

Summing up problem I., which I have only discussed up to now, the space taken by the entity y itself is automatically considered as an enclosing area when it enters into an INCL-relation with x. As such, since the entity y cannot be considered dimensionless. 'at' cannot be used to lexicalize the INCL-

-relation between x and the entity y itself. Only the other points of REGION(y), those situated *beside* y, can enter into an INCL-relation with x, when y is considered as a point. I will now get down to problem II., which is closely related to I.

Consider sentence (6). The entity y in (6), viz. 'post office' is much more neutral with respect to the label 'enclosing area', that is the entity y itself (as part of REGION(y)) does not necessarily emerge as an enclosing area, when the speaker considers an INCL-relation between x and the entity y. 'Post office' is only considered as an enclosing area when the speaker deliberately wants to consider it as such. In other words, when the speaker wants to lexicalize an INCL-relation x and the entity y, y itself can be considered as a point or dimensionless entity, so that the speaker can safely resort to 'at' to cover this relation between x and the entity y considered as a point. Moreover, 'at' may also be used to cover the INCL-relation between x and the remaining points of REGION(y), when y is considered as a point. Therefore, 'at' in sentence (6) indicates proximity V coincidence. A similar line of reasoning holds for (7).

Summing up, the context of 'at', i.e. the entity y, makes that in some cases (e.g. (4)), 'at' can be further specified as PROXIMITY(x, POINT(y)), and in other cases (e.g. (6)) as PROXIMITY(x, POINT(y))V INCL(x, POINT(y)). INCL(x, POINT(y)) is often referred to as 'coincidence'; PROXIMITY(x, POINT(y)) can be defined as INCL(x, REGION(y))\INCL(x, POINT(y)). In other words, depending on y, the general meaning of 'at' may be further specified as PROXIMITY(x, POINT(y)) or PROXIMITY(x, POINT(y)) V INCL(x, POINT(y)). Two things should be kept in mind.

1. I stated 'further specified' because 'at' evidently keeps it general meaning.

2. Proximity or proximity v coincidence are not part of the semantics of 'at' *stricto sensu*, but they are part of the semantic characterization of the sentence (or context) in which 'at' occurs. 'At' itself does not indicate proximity, because in that case, the speaker would select 'by' or 'near'.

3.3.2. *problem III.*

Problem III. addresses the question why sentences such as (8) preferably only express 'coincidence' (i.e. INCL(x, POINT(y))).

(8) They put up camps *at* strategic points.

Similar examples are

(17) They crossed the border *at* three points.

(18) Faults in the rock are traceable *at* various points along the coast.

(19) Chicago is *at* the point where East and West meet.

Two factors come into play here.

1. Unlike the sentences we have dealt with so far, in which y (the place of location), although apprehended as a point, refers to a particular space occupied (an area, volume, line), y makes no reference to a space occupied in (8) and (17)—(19). In these cases, the speaker does not reckon with the fact that the entity y actually covers more than one point. He simply deals with y as a point, without taking its spatial extension into account. Compare sentences (4) and (6) where the spatial extension of y is more clearly present, although y itself can be apprehended as a point.

2. When the entity y is a point, i.e. has no spatial extension, the only characterization of REGION(y) that I can come up with is y itself. Indeed, when an entity y is unambiguously and exhaustively circumscribed by its boundaries, then every x, located outside y cannot be said to be included in the place referred to as y. Hence, x fails to meet the condition for inclusion within the REGION(y), which is precisely the criterion for 'at'. Evidently, when y denotes a point, these boundaries are taken to be very minimal, but the general principle still holds: a point located outside another point referred to as y cannot be said to be included in the place referred to as y. Therefore, 'at' can only cover those relationships that express coincidence of x with a point y.

3.3.3. *problem IV.*

Problem IV. is a clearer instance of the general principle just outlined in 3.3.2. I have already mentioned sentence (9) as an illustration of this problem.

(9) *The man *at* the living room.

I will first discuss a similar example (20)

(20) *Our spy *at* Belgium.

'At' can never express the relation between our spy (x) and Belgium (y) in sentence (20) because

1. Belgium automatically defines an enclosing area when it enters into an INCL-relation with x. This constraint on 'at' does not suffice, because similar examples such as (21) still allow 'at' indicating proximity.

(21) The man *at* the closet.

So, a second criterion must come into play.

2. This second criterion is an instantiation of the general principle described above. Conceptually, a country is exhaustively and unambiguously circumscribed by its boundaries, so that every x located outside the country cannot be included in the REGION of the country. Indeed, the following

paraphrase will not hold: any x located outside y cannot be said to be included in the place referred to as y (i.e. the country), hence the criterion for 'at' is not met.

Cities and towns are not as restrictive in this respect: their boundaries are not as clearly marked so that they allow for collocation with 'at' as in (22)

(22) Our spy *at* London.

However, sometimes it is possible to indicate a PLACE-relation with a SpP such as 'at' when a country is, expecially in earlier times, considered very far away. In that case, a country is more apt to being apprehended as a point. Compare (23)

(23) They have got a plantation *at* Paraguay.

Let us now get back to sentence (9). 'At' cannot be used to indicate a PLACE--relation with 'living room' (nor to indicate a proximity relation, nor to indicate a coincidence relation). The fact that 'living room' is functionally an enclosing area when it enters into an INCL-relation with x prohibits the use of 'at' (cf. (14), (15), (16)). Moreover, conceptually, 'living room' is considered as a clearly marked/circumscribed area so that according to the general principle illustrated in (20), the SpP 'at' cannot be used to indicate a proximity relation either.

3.3.4. *Summing up*

The context in which 'at' occurs makes that 'at', beside its general meaning, is further specified as indicating proximity, coincidence or proximity v coincidence.

I. If x enters into an INCL-relation with an entity y that is automatically considered as an enclosing area, then this relation will never be lexicalized as 'at'. In these cases, 'at' only indicates proximity of x with respect to y (next to the general meaning of 'at'). (cf. sentences (4) and (5)).

II. When x enters into an INCL-relation with an entity y, not automatically considered as an enclosing area, 'at' can be taken to mean either proximity or coincidence. (Cf. sentences (6) and (7)).

III. When REGION(y) is restricted to y itself, 'at' can only indicate coincidence. (Cf. sentences (8) and (17)—(19)).

IV. 'At' cannot be used at all when y equals REGION(y) (cf. III) and on top of that, when y is always considered as an enclosing area when it enters into an INCL-relation with x. (Cf. sentences (9) and (20).

Once more, I want to emphasize that these further specifications indicated by 'at' are not part of the meaning of 'at' stricto sensu, but that they are part

of the meaning of the sentence or context in which 'at' occurs. 'At' itself only has the very general meaning which we described as INCL(x, REGION-(POINT(y))).

3.4. *Further pragmatic specifications of 'at'*

Before starting a short contrastive discussion, I would like to complete the semantic picture of 'at' in English. Let us therefore go back to Lindkvist's enumeration of the different meanings of 'at'. Lindkvist (1968 : 129) defines his fourth separate meaning of 'at' as follows:

> "location close to or within a body, surface or area thought of as being used to serve a certain purpose".

The following sentences exemplify this so-called 'separate meaning'.

(24) He works *at* the factory.
(25) He works *at* the mill.
(26) He is *at* the university.
(27) He is *at* his desk.
(28) He is *at* his office.

Just like the other three meanings that Lindkvist proposes (cf. section 3.1.), this meaning can also be reduced to the general semantic characterization of 'at' (cf. (13)). However, in this case, the allegedly separate meaning is not a further semantic specification induced by the context of 'at', but it is a *conversational implicature* of the sentence in which 'at' occurs. 'At' itself simply expresses the general PLACE-relation as defined above. The fact that in (24), x (he) is an employee of the factory, i.e. works there, is merely a conversational implicature of (24), because it can easily be cancelled: cf. (24')

(24') He is at the factory, which doesn't mean that he works there, but he is picking up his wife there.

Also other, allegedly separate meanings of 'at' can be dealt with in terms of conversational implicatures. Some authors take (29) and (30) respectively to mean 'in front of' and 'looking through'.

(29) He is *at* the door.
(30) He is standing *at* the window.

These alleged meanings are merely conversational implicatures of (29) and (30).

Conversational implicatures may also further specify the meaning of 'at'. Consider (31)

(31) The hearing *at* the court.

Although 'at' in this sentence indicates proximity V coincidence (as a semantic

specification of the general meaning of 'at'), (31) conversationally implies that the hearing occurs within the court (because a hearing usually occurs within the court house), and thus restricts the meaning of 'at' to coincidence. However, this conversational implicature can easily be cancelled.

4. *English and Polish contrasted*

English conceptualizes 'at' as a SpP with one basic meaning (viz., INCL(x, REGION(POINT(y)))), from which further specifications may be derived depending on the context in which 'at' occurs. These further specifications may be of a semantic or pragmatic nature (e.g. 'proximity' in (4) is a further semantic specification of (4), whereas 'functionality' in (24)—(28) is a pragmatic one). Again, these specifications are part of the meaning of the sentence in which 'at' occurs and not of 'at' as such.

From a contrastive point of view, 'at' has no counterpart in Polish (or in German or Dutch). The Polish speaker does not conceptualize a spatial relation between an entity x and an entity y apprehended as dimensionless, i.e. as a point. Therefore, the further specifications (be they semantic or pragmatic) of the general 'at' that are made in English, must be rendered by another, more specific means (i.e. more specific SpP) in Polish, which considers the entity y in its full fledged spatial extensionality.

1. As such, when an English sentence (cf. (4)) in which 'at' occurs expresses proximity of x with respect to an entity y apprehended as a point, Polish will have to lexicalize this relationship by means of a more specific SpP that can only indicate proximity between x and y (without y being considered as a point):'przy' (by, near).

2. When 'at' in sentence (6) indicates proximity coincidence, Polish will translate this SpP either as 'w' (in), 'na' (on) or 'przy' (by): it does not offer an exact equivalent of 'at', but it must choose a more specific SpP.

3. When 'at' indicates coincidence (cf. (8)), Polish will translate 'at' as 'w' or 'na', depending on whether x enters into an INCL-relation with an enclosing area y or with a surface y.

4. When the sentence in which 'at' occurs conversationally implies the notion 'functionality', Polish speakers will again have to resort to a SpP that lexicalizes a specific spatial relationship, whereas English simply uses the general 'at'. The functionality will have to be expressed by other means (e.g. by the verb). Indeed, Polish must translate "He is *at* the factory" as "He is *in* the factory", in which case the conversational implicature disappears. In order to express the notion 'functionality', the Polish speaker may have to resort to the verb 'work'.

Summing up, while English sepakers can render particular spatial relations by means of the SpP 'at', which has the general meaning of inclusion

of x within the region of the entity y, apprehended as a point and which relies on the rest of the sentence for further specification, Polish must always lexicalize these specifications from the start: it does not have an equivalent for the general 'at'.

I am not claiming that the specific Polish SpP is equivalent to the English 'at', augmented with further specifications from the sentence. As such, 'at the gate' does not mean the same as 'przy bramie', because 'at the gate' renders the notion proximity with respect to an entity apprehended as a point whereas Polish considers 'przy bramie' as the expression of a spatial relationship between an entity x and an entity y which has a full fledged spatial extensionality. The same holds, mutatis mutandis, for the Polish translations 'w' and 'na' of 'at'.

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A CONTRASTIVE ANALYSIS OF ENGLISH *SOME AND ANY* AND THEIR HUNGARIAN EQUIVALENTS

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0. Introduction

This study is a contrastive analysis of *some* and *any* in English and their Hungarian equivalents. The ultimate goal is to identify similarities and differences of these, and to draw implications of learning of *some* and *any* by Hungarian learners of English (henceforth HLE). First, the functions, forms and meanings of *some* and *any* are described. A short summary of the use of corresponding Hungarian determiners and pronouns is also included. The analysis of the English structure precedes that of the Hungarian structures, except where the material requires presentation in reverse order. Finally, some predictions on significant difficulty and interference types are presented.

1. Theoretical scope and framework

Both *some* and *any* are grammatical devices used in a wide scope. They may occur as articles and quantifiers in determinative function, in other cases as independent pronouns replacing whole noun phrases (the use of *some* as adjective and adverb is also touched upon in this paper). There is no agreement among linguists about their exact use. General rules can be set up, but counterexamples can be given as well. However, as a starting point we can state that both *some* and *any* express indefiniteness in all their functions.

Traditional grammar classified *some* and *any* as indefinite pronouns and did not pay special attention to their determinative usage. Other, mainly American linguists, working in the frame of transformational-generative grammar, either set up transformational rules concerning their syntactical usage (Klima 1964), or approach the problem from the point of view of sym-

bolic logic (Vendler 1967), or from a semantic notion of presupposition (R. Lakoff 1969). But all of them touch upon only a small section of the use of *some* and *any*. The most complete description available is that of H. E. Palmer (revised by R. Kingdon 1969) and of R. Quirk et al. (1972) dealing with formal, syntactical and semantic problems.

The literature concerning the Hungarian equivalents is quite limited and mostly traditionally oriented.

2. Characteristics of some and any

Both Palmer and Quirk consider *some* and *any* as partitive particles.

2.1. Some — often called an affirmative particle — has three forms in pronunciation: /'sʌm/ /səm/ and /s̩m/.

Functionally *some* may occur as a closed-system determiner belonging, like the articles, to central determiners (see Quirk et al. (1972); Stephanides (1974)):

(1) *Some* children were ill.

At the same time as a partitive particle it may occur in *of* structures as a part of an open-class determiner:

(2) *Some* of the children were ill.

Finally, it may have pronominal function in its strong form in most of its functions:

(3) *Some* were ill.

2.1.1. Article-like some /səm/, /s̩m/

Recently several linguists (Gleason (1955 : 224)); A. Hill (1958 : 188); H. E. Palmer (1969 : 54); et al.,) have analysed the unstressed variant of *some*, as an article used with uncountable nouns (U) and with plural countable nouns (C. pl.), (for further details see Stephanides 1974):

(4) There is *some* water in the glass. (U)

(5) There are *some* books on the shelf. (C. pl.)

It is article-like because it closely corresponds functionally to the indefinite article *a/an* i.e., its distributional options and its categorical affiliations are the same. Before plural countables the weak form of *some* serves as a plural of the indefinite article very frequently with existential *there are*. The indefinite article *a/an* with singular countables cannot be omitted, but *some* may be dropped to give a plural NP a more formal, impersonal, objective character. (*Any* does not always occur as its counterpart in this function):

(6) *There is — book on the shelf.

(7) There are (*some*) books on the shelf.

2.1.2. Some functioning as quantifier

Some expresses unspecified quantity denoting an unknown or unspecified amount or a number of persons and things (Jespersen 1949). So *some* in unstressed form /səm/ expresses unspecified quantity. It can be used with uncountable nouns as well as with plural countables in the function of a quantifier. It is quantitative in meaning since it is almost synonymous with *a little*, and numerical in meaning since it is almost synonymous with *a few*:

(8) I thought we were going to make *some* tea. ('a little')

(9) *Some* telegrams you have to deliver,... *some* telegrams you can't phone... ('a few')

The stressed form of *some* also occurs in pronominal function expressing quantification, generally with an antecedent in the text:

(10) How about some tea? Yes, I'd like *some*. (primary, rhythmic stress)

2.1.3. Some functioning as particularizer

Some in its strong form /sʌm/ i.e., with primary stress, but sometimes with contrastive stress, used as a determiner may occur with singular countable nouns and it has an interpretation having nothing to do with quantification. It indicates that the following noun refers to an unknown or unspecified person or thing. It expresses 'a certain', 'some sort of ', 'some kind of':

(11) *Some* fool has locked the door.

In this case the meaning is very near to that of the indefinite article in its particularizing function, where however the stress is weaker:

(12) *A* fool has locked the door.

The difference between the use of *some* and that of the indefinite article is that *some* expresses stronger indefiniteness:

(13) I went to the pictures last week and *some* old man was smoking in the front...

Bolinger (1977 : 25) states that *some* /sʌm/ with a singular countable is the emphatic equivalent of the indefinite article. This variety of *some* is never used pronominally.

2.1.4. Some functioning as adjective

Some /sʌm/ has another usage with singular countables as adjective indicating something excellent or of a very high degree. It was used first in American English but now it is common in British English as well:

(14) She is *'some* girl!

(15) He's *'some* runner!

2.1.5. Some with cardinal numbers

Some /ʌm/ with primary stress before cardinal numbers means 'approximately':

(16) The boat was *some* seven feet long, and almost circular in shape.

This function of *some* is adverbial.

2.2. Any — sometimes called a negative particle — has /'eni/ as its normal form; /əni/ as an occasional weak form, and /ni/ as an occasional weak form after *t* and *d*.

Any may function as a determiner modifying an NP (ex. 17), or in certain cases modifying an adjective (ex. 18), and it also occurs independently as a pronoun in some of its functions (ex. 19):

(17) Is there *any* wine left?

(18) Can *any* good come from it?

(19) Are there *any* left?

While differences in the phonetic realization of *some* are correlated with differences in meaning and function; such differences in *any* depend mainly on phonetic context and have no implications for meaning except in the case of contrastive stress.

2.3.1. Several grammars consider *any* as the counterpart of *some* /'ʌm/, /səm/ under certain different syntactic conditions. The problem of *any* and *some* "... in one view (adopted by Lees 1960a) belongs to syntax and should be dealt with transformationally. In the other view it belongs to lexicon and its relationship to such matters of syntax as negation and interrogation is incidental." (Bolinger 1977 : 24).

As H. E. Palmer (1969 : 76) states, in interrogative, negative, conditional, hypothetical and dubitative sentences *some* is generally replaced by unemphatic *any* with both uncountable nouns and plural countables.

However, it must be pointed out that while *some* generally particularizes, but does not specify, *any* itself does not particularize.

Klima (1964) proposed a transformational rule (called 'indefinite incorporation') which turns the form of *some* obligatorily in certain syntactical environments (mainly in negatives and interrogatives) to *any*. In environments of the following types — according to Klima — *any* replaces *some* as follows:

negatives: (20) Bill does *not* have *any* Hungarian books.

questions: (21) Has he read *any* French books?

conditionals: (22) *If* he has *any* free time you'll be lucky.

comparatives: (23) He has *as* little time *as any* doctor I know.

(24) He has *less* time *than any* doctor I know.

too: (25) He is *too* busy to give *any* help.
only: (26) It's *only* he who can give us *any* help.

This statement or rule would indicate that the meaning of sentences containing *some* is identical with that of sentences containing *any*. However, Bolinger (1977 : 34) points out that:

> "*any* is extremely USEFUL to negation and hence highly frequent IN negatives, but it is not in one-to-one mechanical relationship with negation...".

The same idea is expounded by Quirk (1977 : 223) who asserts that:

> "it is the 'deep' basic meaning of the sentence which ultimately conditions the choice of the *some* and *any* series."

Bolinger (1977 : 26) summarizes the situation as follows:

> "... *some* and *any* do not have affirmation and negation built into their meaning but what correlation there is between the two systems is a matter of semantic comparability. A kind of polarizing force attaches itself more or less permanently to certain expressions, pairing them off with others in a negative — affirmative contrast (or, more probably, in a negative — unmarked contrast, as we now prefer to view such 'polarity items'). Usually, though not always, one can read 'negation' as including 'questions' and 'conditions'."

2.3.2. The relation of **some** *and* **any** *to assertion and non-assertion*

In the present paper from a semantic point of view *some* is considered assertive and *any* as non-assertive.

The negative particle *not* or *n't* attached to the verbal part — normally to an auxiliary — is frequently followed by a non-assertive item: *any*, its compounds, or *either* in purely negative sentences:

(27) I *don't* want *either*. (definite)
(28) I *don't* want *any*. (indefinite)

"The combination of *not* with a non-assertive form can be replaced, in most instances, by a negative word: e.g., *no*, its compounds, *neither*, *nor*, *none*. There are consequently two negative equivalents of each positive sentence." (Quirk et al. 1972 : 376):

(29) (a) We've had *some* lunch. (determiner)
(b) We've *not* had *any* lunch.
(c) We have had *no* lunch.
(30) (a) We've had *some*. (pronoun)
(b) We haven't had *any*.
(c) We have had *none*.

Not... any means the same thing as *no* though it may be more emphatic than *no* — says Jespersen. But Bolinger (1977) shows that *no* indicates simple negation, while presupposition or new information is implied by the use of *not... any*. (However, this is not the topic of the present paper.)

Quirk considers negation as a subtype of non-assertion. Jespersen, on the other hand, speaks about statements in which negation is implied, where *any* may occur. So beside pure negatives where *not*, *n't* or other negative elements like *never*, *no*, *neither* (ex. 31) occur on the surface, we may speak about *incomplete negatives* with elements like *hardly*, *nearly*, *almost*, *little*, *few*, *least*, *but only*, *seldom*, *scarcely*, *without*, etc., (ex. 32) or about *implied negatives* with elements like *just*, *before*, *reluctant*, *different* (ex. 33) and with such verbs as *fail*, *prevent*, *refuse*, *cease*, *hinder*, *doubt*, *miss*, etc., and also in comparison with *too* (ex. 34):

(31) You *never*, put *any* ice in my drink.

(32) ... in all Marseilles there was *hardly any* sound of traffic...

(33) 'Anyway', said Mother *refusing* to be drawn into *any* medical arrangements, 'I think we ought to find it out,'

(34) He was *too* tired to do *any* work.

2.3.3. However, *some* is also used in 'conductive' negative sentences though not so frequently as *any*. Its meaning is the usual one "an unknown or unspecified number, amount, person, or thing."

(35) It is *not* easy to forget *some* things.

(36) I don't object to *some* of them, but I won't have them all.

Some may also be used in sentences with two negatives that cancel out each other. (Thesecond negation being implied in *without*):

(37) I hope the following statements will *not* be *without some* interest.

If negation is a denial or contradiction of the positive, *some* may occur. In such cases only the action is denied:

(38) He did NOT offer her *some* chocolates.

The same or similar phenomenon can be shown in connection with conditionals when a positive/assertive reaction is expected:

(39) Come along *if* you want *some* tea to drink or *some* cake to eat.

Also in comparatives and in interrogatives the use of *any* and *some* can sometimes indicate difference in meaning:

(40) (a) He is younger *than any* of his friends. (He is the youngest) (exclusive meaning)

(b) He is younger *than some* of his friends. (He is neither the oldest, nor the youngest)

(41) (a) Why don't you study *any more?* (He has stopped studying)

(b) Why don't you study *some more?* (He hasn't studied enough)

The same problem is analysed in R. Lakoff's (1969) article where the difference in the use of *some* and *any* is explained in terms of presuppositions. We will look at some of Lakoff's main points.

When *some* is used in questions, the sentence may express a pure, polite offer, an invitation to postive action, or the speaker's expectation of a *yes* answer, when he has a positive assumption; with *any*, on the other hand, either a negative answer is expected or no assumption is made:

Questions: (42) Will you have *some* beer? (U)
(43) Will you have *some* pretzels? (C. pl.)
(44) Will you have *any* beer? (U)
(45) Will you have *any* pretzels? (C. pl.)

Dubitative sentences: (46) I wonder if I get *some* money.
(47) I wonder if I get *any* money.

In case of (ex. 46) the speaker has a positive feeling about the action i.e., he will get the money; while in (ex. 47) the speaker's attitude is neutral or negative. He either does not know whether he will get the money or not, or he is nearly sure that he will not get any.

With some conditionals having different underlying performative verbs only one or the other of the particles can occur:

(48) (a) *If you eat *some* candy, I'll whip you.
(b) If you eat *any* candy, I'll whip you.
(49) (a) If you eat *some* spinach, I'll give you ten dollars.
(b) *If you eat *any* spinach, I'll give you ten dollars.
(Examples are taken from R. Lakoff)

In the pair of (ex. 48) only (b) is normally exceptable. The underlying performative verb is: I *warn* you that..., and whipping is a punishment, therefore *any* must be used since the infraction of the rule is enough to provoke punishment and not some quantity of rule infraction. However, in the pair of (ex. 49) the opposite is true. Here the underlying performative verb is: I *promise* you that... and the reward only follows when the action of eating is done on a reasonable scale and therefore only *some* is acceptable. As we can see in these sentences we have the same overt syntactical environment, but contrasting meaning of the underlying performative verbs in the main clause demands different particles. Similar differences appear in co-occurrence with such lexical items as the verbs *agree* and *deny*, etc., where the presuppositions are overtly expressed with different quantifers in English.

To sum up the use of *some* and *any* in a particular set of environments we may quote Collinson (in Jespersen (1949 : 609)):

"In general the sphere of *some* is that of actuality and *any* that of possibility. *Some* particularizes without specifying, it restricts by imposing a condi-

tion explicit or implicit. Its psychological tone is thus one of fixation or concentration of recollection. On the other hand, *any* does the reverse of particularizing, it encourages random shots as every item is on the same level and none claims preference over another. Its psychological tone is that of freedom from restraint, of sweeping generalization of or sovereign indifference of choice."

2.4. The occurrence of ***any*** *in assertive (affirmative) sentences*

While it is shown above that *some* may occur in certain 'non-assertive' environments, the converse is also true for *any* in its stressed form (but not with contrastive stress). It can occur in special assertive sentences with the meaning 'no matter who, no matter what' (Quirk et al. 1972 : 224). In such sentences in the case of countable nouns *any* refers to one among a certain, probably definite, number of items. In the case of uncountable nouns it refers to any amount, no matter how small. Their main types are as follows: Comparisons: (50) *Any* bed is better than no bed. (determiner)

(51) This one is better than *any* I've ever seen. (pronoun)

Sentences in which a modifying clause restricts the 'whateverness' of *any*:

(52) Turn *any* evidence *you have* over to the police.

Subordinate clauses with tentative adverbs and with *if* and its synonyms like *in case, supposing*:

(53) If it makes *any* difference, we can try some other way.

Simple affirmation in which 'whateverness, a non-particularity' is implied:

(54) They'll be here *any* minute.

The above mentioned use of *any* in assertive contexts is not far from its use in general statements, where its meaning is related to that of *all*, *every*, and *each* or the indefinite article *a/an*. Certain authors emphasize their similarity (Vendler 1967); others the differences (Reichenbach 1947; Perlmutter 1970; and Stephanides 1982). In its general meaning, items, persons, things or abstract identities are considered in their totality or in the totality of a part. What we state of them is valid considering each or any of them. Ordinarily, language has many devices for expressing *general propositions*. In affirmative forms these devices, taking into consideration only determines and noun phrases, are the following:

(a) the indefinite article+singular countable noun;
(b) the definite article+singular countable noun;
(c) the zero /ø/ article+plural countable noun;
(d) the universal quantifiers: *each*, *every*, *all*; and
(e) the partitive quantifier: *any* with nouns.

(55) (a) *A* swallow build*s* nests. (generic)
(b) *The* swallow builds nests.
(c) ø Swallow*s* build nests.

(d) (i) ***Each/every*** swallow build*s* nests.
(ii) ***All*** swallow*s* build nests.
(e) (i) ***Any*** swallow build*s* nests.
(ii) ***Any*** swallow*s* build nests.

As Quirk (1951) states:

"Quantification cuts across the vernacular use of 'all', 'every', 'any' and also 'some', 'a certain', etc., ... in such a fashion as to clear away the baffling tangle of ambiguities and obscurities..."

These devices are not freely interchangeable. Some changes would result in deviant or odd sentences, others in loss of generality. Vendler (1967:71) calls attention to certain problems:

"I have reasons to think that the method of lumping *each*, *every*, *all*, and *any* together treating them as stylistic variants of the same logical structure tends to obscure issues concerning the type of reference, existential import, and law-like form of general propositions."

Vendler attempts to exhibit the differences as well as the similarities in the role of particles.

Since this paper deals only with the main characteristics of *any* in general propositions, the use of *every*, *each* and *all* is outside its scope. However, we will touch upon their usage insofar as it is necessary in describing the meaning and use of *any*.

Any expresses "indetermination with generality, freedom of choice", with countables it refers to only one unit, which is its essential feature in contrast to the universal particles, including the distributive *every* and *each* (which apply to all, but only consider one at a time), and the collective *all* (when items are meant in their totality). *Any* is different to the size of its immediate scope since it cannot exhaust totality:

(56) Take *any*.

When *any* occurs in generic statements or conditionals the items referred to are not identified, they remain indefinite. The same holds for questions and negations when *each*, *every*, or *all* plus another determiner is used (ex. 57), then existence is taken for granted, while in the case of *any* existence is not presupposed (ex. 58). The same is true for *all* as sole determiner (ex. 59):

(57) (a) Did you see *all the* pigs in the pen?
(b) Did you see *every* pig in the pen?
(c) Did you reply to *each* letter?
(58) (a) Did you see *any* pigs in the pen?
(b) Is/Are there *any* pig(s) in the pen?
(59)[1](a) Try to do it by *all* means.
(b) Try to do it by *any* means.

[1] In the case of examples (59) (a and b) *all* and *any* may be considered as stylistic variants in American English, but not in British English.

An important fact must be mentioned: *any* cannot occur in simple declarative copulative sentences, however, *all* may occur:

(60) **Any* raven is black.

(61) *All* ravens are black.

In modified declarative copulative sentences *any* may occur:

(62) *Any* raven *you may select* will be black.

Our next task is to contrast and compare the use of *any* in generic propositions with that of the indefinite article *a/an* (see Permutter 1970; Stephanides 1982). E. Moravcsik (1967 : 71) points out:

> "In languages that have no articles, (the equivalents of) *all*, *every* and *any* may co-occur with nouns that are meant to be generic, and verb aspect may also be a marker (in English, in some contexts, the progressive does not go with generic nouns). In languages with articles these or their absence may also mark generic or other nouns like in English and Hungarian."

While generally the indefinite article *a/an* is considered as a derivational form of the cardinal number *one* Perlmutter (1970: 119—21) points out that the indefinite article shares several (but not all) distributional features with *any* in generic statements. Generic statements with *a/an* like those with *any* (ex. 63) can be joined with *or*, but not with *and* (ex. 64). They cannot be passivized when they would occur in the *by*-phrase expressing the agent (ex. 65). They cannot occur with certain adverbials of time (ex. 66). Generic statements with other grammatical devices may occur with predicates indicating something of the entire group or class rather than of any individual in it, but the indefinite article or *any* cannot occur with them (ex. 67). The same is true of predicates denoting distribution, origin, etc., (ex. 68). However, they behave differently under negation (ex. 69). (Ihalainen 1974 : 78):

(63) (a) *A* swallow *or a* blackbird builds nests.

(b) *Any* swallow *or any* blackbird builds nests.

(64) **A/Any* swallow *and a/any* blackbird builds nests. (ungrammatical)

(65) *Nests are built *by a/any* swallow.

(66) **A/Any* swallow built nests *in the old days*.

(67) **A/Any* swallow is *found* in Asia.

(68) **A/Any* swallow almost *died out*.

(69) (i) *A* cow does *not* build nests. (i.e., no cow builds nests, referring to the class in its totality)/

(ii) *Any* cow does *not* build nests.

2.5. The following Table sums up the major uses of *some* and *any*. It is clear that these particles contrast too often in identical environments for the difference between them to be attributed to style.

Table 1. The functions and meanings of some *and* any

Function	Types	Some		Any	
		Count. Sg.	Unc.+Count. pl.	C. Sg. U.+C. pl.	
Determiner (Premodifier)	article-like	ø	+/som/ /sm/	ø	ø
	neg. particle	ø	ø	ø	+
	quantifier	ø /som/	+/som/	ø	+
	particularizing	+ /sam/	+	ø	ø
	superlative	+ /sam/	ø	ø	ø
	distributive	ø	ø	+ /stressed/	+
	generic	ø	ø	+	+
Pronoun	neg. part.	ø	ø	ø	+
	quantifier	ø	+	ø	+
	distributive	ø	ø	+	+
	generic	ø	ø	+	+

3. *Hungarian equivalents*

After the survey of the use of English *some* and *any* we will very briefly describe their Hungarian equivalents. These equivalents include different pronouns, numerals, adjectives and adverbs. In Hungarian linguistic literature the majority of these elements are considered as pronouns, and they are not categorized as determiners. Hungarian pronouns, however, can be substantival, adjectival and numerical. In this study we are interested in demonstrative, general and indefinite pronouns.

3.1. Demonstrative pronouns refer to persons, things, or abstract notions, whose characteristics or quantity are known by both the speaker and the hearer. Either they can be seen, or have already been mentioned during the speech event. They often refer to a state of affairs expressed by a whole subclause. It is characteristic of Hungarian demonstrative pronouns — as well as of several other grammatical devices in Hungarian — that they can contain high vowels when referring to items nearby, while those containing low vowels refer to items further away.

Demonstrative pronouns can be substantival, adjectival and numerical, and in each group they can simply refer to items, emphasize the reference or identify the reference.

Demonstratives can function attributively (as determiners) together with the word or words they refer to. In this case they generally occur with the definite article *a/az* (the)=*ez a/az a*, except in archaic set phrases (like: *e* pillanatban=in this moment):

(70) Add ide *azt a* könyvet.
(lit., Give here that-Acc. the book-Acc.)
Give me that book.

Adjectival demonstratives can, on the other hand, function nominally:

(71) *Effélére* gondolt.
(lit., such-on thought-he)
He has thought of such things.

The numerical demonstrative sometimes in its form with a case-ending functions adverbially in a sentence, but generally it has the same function as a numerial. (See Table II. below):

Table II. Demonstratives[2]

Type	substantival	adjectival	numerical
Demonstrative	ez, +az /ezek, azok/	+ilyen, +olyan efféle, afféle ilyenféle, olyanféle ilyesmi, olyasmi ekkora, akkora ez/e-k/a, +az/ok/a	ennyi, annyi
Emphatic	emez, amaz (archaic)	emilyen, amolyan	emennyi, amennyi (rare)
Identifying	ugyanez, ugyanaz	ugyanilyen, ugyanolyan, ugyanekkora, ugyanakkora	ugyanennyi ugyanannyi

3.2. The *indefinite* and *general* pronouns are considered to be similar despite differences in their meaning, because both types are indefinite.

3.2.1. General pronouns are semantically comprehensive words referring to all persons, things and abstract ideas, as well as their characteristics. They are normally compounds having as their first elements *bár-*, *akár-*, *minden-*, *sem-/sen/* — with concessive, total, or negative meaning. The second element is historically an interrogative pronoun.

Substantival general pronouns with the second element *-mi* can co-occur with the word they refer to as determiners:

(72) *Semmi* dolgom nem volt ma.
(lit., nothing duty-mine not was today)
I have had nothing to do today.

Adjectival general pronouns may function nominally (which is a charac-

[2] Only the marked demonstratives have occurred in our corpus as the Hungarian equivalents of the English *some* and *any*.

teristic feature of any adjective in Hungarian):

(73) *Akármelyiket* választhatod.
(lit., Anyone-Acc. choose-can-you)
You can chose anyone.

The general pronoun *minden* co-occurring with a noun is described in Hungarian terminology as a numerical pronoun (English term: a determiner), or occurring independently as a substantival pronoun (English term: a pronoun). (See Table III. below):

Table III. General Pronouns[3]

Type	Substantival	Adjectival	Numerical[4]
Concessive	akárki, akármi bárki, bármi	akármi akármely/ik/ akármily/en/ akármiféle bármi bármely/ik/ bármily/en/ bármiféle bárminemű	akármennyi akárhány akárhányadik bármennyi
Distributive	ki-ki		
Total	mindenki mindegyik mind, minden mindnyájan	minden/ik/ mindenféle	mind minden valamennyi valahány
Negative	senki, semmi	semmilyen semekkora semmiféle semmi	semennyi sehány

3.2.2. In the case of *indefinite* pronouns the speaker cannot or does not want to give a definite reference to a person, thing, abstract idea, their characteristics or quantity.

Some of the indefinite pronouns are compound in form. Their first member is *vala-* or *né-*expressing indefiniteness. (These forms are no longer productive)

The compounds with the element *vala-* may sometimes have relative pronominal meaning as their secondary meaning:

(74) *Valahány* csepp esik rája, annyi áldás szálljon rája.
(lit., As-many drop falls him-on, as-much blessing descend-should him-on)/

[3] Not all of the pronouns in Table III have occurred in our corpus as Hungarian equivalents of English *some* and *any*.

[4] Numerical general pronouns can occur in both pronominal and determinative functions.

As many (rain) drops fall on him, so much blessing should descend on him.

Substantival indefinite pronouns always take a case ending, but it may be the zero nominative case ending. Adjectival pronouns generally take endings, if they constitute an NP alone, and take no endings if used attributively. Numerical pronouns can occur without endings when they function as attributes (i.e., determiners). On the other hand, functioning as adverbials they frequently take the case ending:*-szor/ször*. (See Table IV. below):

Table IV. Indefinite pronouns[1]

Type	Substantival	Adjectival	Numerical[2]
Indefinite	valaki, valami valamelyik /egy/némelyik egyik, másik más, egy s más egyéb többi	valami valamely/ik/ valamilyen valamiféle valamekkora némely, némi néminemű másik, egyik-másik más holmi /egy/némelyik	valamennyi valahány /egy/néhány /egy/pár

3.3. In addition to the pronouns mentioned above both *definite* and *indefinite numerals* can also function as counterparts for *some* and *any* in Hungarian.

The indefinite numerals (called quantifiers in English terminology) mark quantity in general, not precisely. Often the speaker cannot or does not want to specify a definite quantity, e.g., *egypár* (some); *sok* (many/much); *kevés* (few) little); *több-kevesebb* (more or less). Most of the indefinite numerals can be inflected for comparison.

Indefinite numerals and adjectives, as well as nouns used as adjectives referring to quantity, are difficult to distinguish because of the close relation in their meanings: *számos* (numerous); *tömérdek, számtalan* (innumerable); (*egy*) *csomó* (a bunch of). The same is true for numerical indefinite pronouns: *néhány* (some); *valamennyi* (all); *egypár* (a few/some of).

Definite numbers can also express indefinite quantity:

(a) by the repetition of the number: *egy-egy* (lit., one-one), ('a few')

(b) by different numbers in collocations: *egyszer-kétszer* (once or twice)

(c) by the numbers in plural: *ezrek* (thousands)

(See Table V. below):

[1] Not all of the pronouns in Table IV have occurred in our corpus as Hungarian equivalents of English *some* and *any*.

[2] Numerical indefinite pronouns can occur in both pronominal and determinative functions.

Table V. Numerals

Type	Substantival	Adjectival	Adverbial
Definite	egy-egy egy-kettő	egy-egy egy-két egy	egyszer-kétszer
Indefinite /Quantifier/	sok kevés több-kevesebb — — — /egy/pár[7]	sok kevés több-kevesebb számos tömérdek számtalan /egy/pár[7]	sokan kevesen — számosan — /egy/páran[7]

3.4. In some special uses of *some* and *any* certain adjectives or adverbs may occur as their Hungarian equivalents: *bizonyos* (certain); *körülbelül* (about); etc.

4. Summary

The aim of this necessarily incomplete paper is to show the major functions of *some* and *any* and to give their most frequent and characteristic Hungarian equivalents (with the intention of identifying implications for Hungarian learners of English).

(1) *Some* in its unstressed variant can function as an article.
It has no overt counterpart in Hungarian, where it corresponds to the zero article:

(75) (a) There is *some* wine in the glass.
ø Bor van a pohárban.
(b) We need *some* good men for the job.
ø Ügyes férfiakra van szükségünk a munkához.

Sometimes in expressing quality the indefinite article *egy* in Hungarian may occur.

(2) *Any* in negative context occurs obligatorily where there is no other determiner present in the sentence. It also has no overt counterpart in Hungarian when it again corresponds to the zero article:

(76) ... but there was *never any* response.
... de *sosem* kapott ø választ.

(3) Both *some* and *any* can express quantity both as determiners and as pronouns. Each has several Hungarian counterparts which are indefinite determiners, pronouns, numerals and adjectives:

[7] Some linguists consider it as an indefinite numeral, others as numerical indefinite pronoun.

(77) Need *some* petrol, sir.
Kell *egy kis* benzin, uram.

(78) With *any* luck he would be in well before midnight.
Kis/Némi szerencsével jóval éjfél előtt beér.

(79) There'll be *some* transfers any day.
A napokban várható *néhány* áthelyezés.

(80) I don't see *any* use in being a second-rate.
Nem *sok* értelmét látom annak, hogy másodrangú legyek.

(81) All my friends know they have talents, but I'm aware *some* of them are mistaken.
Valamennyi barátom meg van győződve arról, hogy tehetséges, de kétségkivül akad köztük *olyan* is aki téved.

(82) May I read *some* of it?
Olvashatnék belöle *valamit*?

(4) *Some*, in its particularizing function, can occur with singular countables only as a determiner. In this occurrence it has as its Hungarian counterparts indefinite determiners and pronouns:

(83) I might have caught *some* foul disease.
Kaphattam volna *valami* rémes betegséget.

The definite article and the demonstratives, as well as adjectives, though infrequent, may also occur in Hungarian.

(5) *Any*, in its distributive function, can occur with both countable and uncountable nouns. It has as its Hungarian counterparts various indefinite and general determiners and pronouns according to the three degrees:

(84) Have you read *any* of the novel?
Olvasott már *valamit* a regényből?

(85) If *any* of the officials had known him before...
Ha a hatósági közegek közül *akármelyik* ismerte volna...

(86) I could write anywhere under *any* circumstances.
A cikkeket megirhatom bárhol. *bármilyen* körülmények között.

In less restricted context the indefinite article *egy* can also function in Hungarian.

(6) *Any*, in its generic function, has inclusive and exclusive general determiners and pronouns as its Hungarian equivalents:

(87) The final decision in *any* domestic matter rested with my father.
Minden családi ügyben apámé volt a végső döntés.

(88) But there is *never any* connection between the two armies.
De a két hadsereg között *soha nincs semmi* kapcsolat.

Frequently, the definite article — a characteristic marker of genericness in Hungarian — may occur.

(7) Superlative *some* expressing a very high degree has a stressed adverb as its Hungarian counterpart:

Table VI

ENGLISH		HUNGARIAN
(1) article-like	[sm] [sem]	*a/(egy)*
(2) negative particle	any	ø
(3) quantifier (det/pronoun)	[sem] [sʌm] any	*olyan néhány* [C] (dem.) *(egy) kis/kicsi* [U] (indef. pron.) (adj.) *sok* [C/U] (indef. num.)
(4) particularizer (det.)	[sʌm]	*a/az* (def. art.) *vala*---milyen *bizonyos* mifélo melyik (adj.)
(5) distributive (det.)	any	(a) *vala* — (indef.) (b) *akár* — (general) (c) *bár* — (general, concessive)
(6) generic	any	*a/az* (def. art.) (a) general-inclusive *minden* -- (b) general-exclusive *sem* (*-sen*)
(7) superlative adj.	[sʌm]	*aztán* (adv.)
(8) adverb 'approximately'	[sem]	(adjs/advs)

(89) She's *some* girl.
Ez *'aztán* a lány.

(8) *Some* with cardinal numbers meaning 'approximately' has different adverbs and sometimes in conversational style an adjective as its Hungarian equivalents:

(90) The boat was *some* seven feet long...
A csónak *körülbelül/mintegy/vagy/ jó* két és fél méter hosszú volt...

Table VI (p. 81) attempts to summarise the findings; however it cannot aim at completeness. Only those Hungarian elements are represented which occurred in the present paper. In its enlarged variant new elements are added. Syntactic environments in which *some* and *any* occur are not represented in the Table.

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PARAMETERS OF LINGUISTIC STRESS: AN EXPERIMENTAL CONTRASTIVE STUDY

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0.1. From the speaker's point of view stress is often defined in terms of respiratory activity. Ladefoged claims that: "A stressed syllable is produced by pushing more air out of the lungs" (Ladefoged 1975 : 97). Moreover, some phoneticians maintain that pitch variations in speech are due to changes in the subglottal pressure (cf. Berg 1957, Ladefoged 1967, Lieberman 1967).

Ohala (1977) presents convincing experimental data which show that, except for emphatic stress, a strong expiratory pulse does not always accompany the production of stressed syllables. Ohala demonstrates that it is the activity of the laryngeal muscles that causes the variations in fundamental frequency and claims further that "... some of the Ps [=subglottal pressure — W. A.] variations, in fact, are probably dependent upon the action of the larynx itself, not the pulmonic system..." (1977 : 156).

The pulmonic system plays, however, an important role in controlling variations of intensity and therefore these two parameters of stress, i.e., fundamental frequency and intensity, may be investigated independently. The third important factor of stress, namely duration, is independent of either the laryngeal or the pulmonic system.

0.2. Traditionally, languages have been classified into three groups according to which of the parameters: intensity, fundamental frequency or duration, is predominant. Views concerning the classification of English and Polish are not unanimous. Some scholars assert that these languages have expiratory type of stress (cf. Bloomfield (1933 : 110—111) for English, Doroszewski (1963 : 117) for Polish) while others express the opinion that both in English (cf. Bolinger 1958) and Polish (cf. Jassem 1962) stress is characterized, first of all, by variations of fundamental frequency.

A discussion of these works as well as of many other studies is outside the scope of the present article. The fact that there exist such conflicting views poses a question whether it would be possible to investigate experimentally the parameters of stress in English and in Polish in such a way that the results obtained for the two languages could be directly comparable. The experiment reported in this article seems to meet these requirements.*

1.0. EXPERIMENT. This experiment is an attempt to explore the nature of stress in English and in Polish. The underlying hypothesis is that whatever the predominant parameter(s) of stress in English and in Polish is, native speakers of those languages will utilize it in their speech when pronouncing new or foreign words.

1.1. MATERIALS. The material consists of 25 words: 15 three syllable words and 10 two syllable words (The list of words is given in the Appendix). They are nonsense words but the subjects were informed that the words came from an African language.[1] Each of the five vowels [iueoa] appeared with the same consonant in all possible positions in a word.

1.2. SUBJECTS. There were thirteen subjects: (1) six native speakers of American English and (2) seven native speakers of Polish. All the subjects were adult males.

1.3. PROCEDURE. All speech samples were recorded in a sound-treated room. The subjects read the words which were printed on a card three times. The vowel to be stressed was marked with an acute accent, e.g., máfura máfura máfura. It was the second (middle) recording that was later analysed. At no time was any of those words spoken by the experimenter.

The subjects were seated in front of a microphone in such a way that a twelve inch subject-to-microphone distance was maintained throughout the entire recording session. The constant distance was achieved by placing the subject's forehead against the head positioning stand with his mouth twelve inches away from the microphone.

1.4. EQUIPMENT. The equipment included an ElectroVoice Model 664 microphone and an Ampex 602 tape recorder. The recordings were made on a Scotch 176 Audio Recording Tape.

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* I would like to express my thanks to all the staff members of the Institute of Advanced Study of the Communication Processes, University of Florida, Gainesville, Florida and especially Prof. William S. Brown, Jr. and Prof. Harry Hollien for their help in the conducting of this experiment.

[1] In fact, the test words sounded like Japanese to some of the subjects.

1.5. TECHNIQUE. Spectrograms were made on a VII (Voice Identification. Inc.) Model 700 spectrograph. Narrow-band spectrograms were analysed for fundamental frequency and intensity.[3] In order to verify accuracy of measurements some recordings, chosen at random, were also analysed on a Honeywell 1508 A Visicorder. The two measurements were almost a perfect match.

In the analysis of intensity an arbitrary base line "0" was posited in the amplitude display.

1.6. RESULTS. The results are presented in Table 1 and Table 2 below.

Table 1. Average fundamental frequency and intensity values for stressed and unstressed syllables produced by American subjects

		SB	JH	DG	BK	RM	HR	Mean
stressed	Hz	159.1	168.4	156.7	136.4	151.2	137.7	152.0
	db	33.5	34.2	35.0	31.7	32.3	33.4	33.0
unstressed	Hz	107.8	145.1	140.0	113.0	129.6	99.9	122.0
	db	24.0	27.3	25.8	23.5	24.5	27.3	25.0
stressed (+)	Hz	51.3	23.3	16.7	23.4	21.6	37.8	30.0
	db	9.5	6.9	9.2	8.2	7.8	6.1	8.0

Table 2. Average fundamental frequency and intensity values for stressed and unstressed syllables produced by Polish subjects

		JCz	MJ	AM	BN	ZP	KS	KSz	Mean
stressed	Hz	196.3	130.4	105.7	148.7	190.8	153.9	186.8	159.0
	db	32.8	28.4	30.2	32.6	31.8	33.4	30.9	31.4
unstressed	Hz	142.0	115.3	87.1	133.1	183.9	103.8	182.9	136.0
	db	26.3	26.8	20.6	28.8	26.4	22.8	28.6	25.8
stressed (+)	Hz	54.3	15.1	18.6	15.6	6.9	50.1	3.9	23.0
	db	6.5	1.6	9.5	3.8	5.4	10.6	2.3	5.6

The data in this experiment demonstrate that the native speakers of American English and Polish utilize the parameters of fundamental frequency and intensity to denote stress in a very similar way. An average stressed syllable produced by American subjects has only 7 Hz higher fundamental frequency and is only 2.4 db. louder than the unstressed syllable than those produced by Polish subjects.

[3] Duration was not considered since length plays a different role in English and in Polish and therefore this parameter is not comparable. In Polish a prolonged articulation of a vowel is associated with emphatic stress (cf. Doroszewski 1963:117) while in English a long syllable may not carry stress, e.g., the first syllable in *urbane*. English and Japanese furnish another example where duration is not a comparable parameter (cf. Taguchi 1981).

These data agree with several previous studies done for English (cf. Lieberman 1960, Brown and McGlone 1974) and for Polish (cf. Jassem 1962).

2.0. CONCLUSIONS. No marked differences were observed between the Americans and the Poles in their use of fundamental frequency and intensity, e.g., the results obtained for the American subject SB are almost identical with those obtained for the Polish subject KS.

The data indirectly corroborate Ohala's assertion (1977 : 156) that variations in fundamental frequency are not controlled by the pulmonic system, e.g., two American subjects, SB and DG, use intensity to mark stressed syllables, while there is a significant difference between the two subjects in the utilization of fundamental frequency (cf. Table 1.).

APPENDIX

The list of test words

máfura	sófumo	fúkura	síkemi	férise
rumána	tosóla	lafúku	lisíte	kefémi
sukamá	kumosó	kusafú	kefísi	mikefé
máku	sóma	fúma	sépi	mípe
tumá	tasó	kafú	misé	temí

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THE USE OF ERGATIVE VERBS BY GERMAN LEARNERS OF ENGLISH.
A PILOT STUDY INTO INTERLANGUAGE

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1. The hypothesis

The investigation being presented here has a long-standing general observation as its starting point: German learners of English tend not to exploit the English verb system as fully as the languages would allow them to do. In reading and in conversations with native speakers, they time and again meet phrases whose verbs they know well as lexemes, but which they, nevertheless, would not have used themselves in the way native speakers do. This happens mainly within the dichotomy *transitive* vs. *intransitive* verbs. The verb *work*, for example, well known to every German speaker of English, will frequently be used by Germans in a sentence like

(1) I never work on weekends.

but almost never in a sentence like

(2) He really works his people too hard.

The verb *burst* will be found in sentences like

(3) The tyre burst and the car crashed into a lamppost.

but hardly ever in

(4) The car burst a tyre and crashed into a lamppost.

This general observation can be made the starting point of a hypothesis which — so far only in vague terms — could run thus: German learners of English do not acquire a native speaker-like competence in handling the transitive/intransitive-opposition.[1] This is so particularly if an English verb lexeme can function in both sub-systems.

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[1] In order to limit the scope of the investigation, the terms *transitive* vs. *intransitive* are used in the traditional sense as exemplified in sentences 1, 3 vs. 2, 4, and all other

2. The general framework for explanation.

The general framework for explaining the second language acquisition/learning process, as it has been developed in the wake of Chomskian linguistics and later, leads us to presume that such observations are not accidental, but can be interpreted as the product of mental processes which cause a language other than the first one to be adopted by a speaker/listener.

This general framework rests on the assumption that adopting a language, in whatever situation and under whatever conditions, is an essentially cognitive process in which the person undergoing this process plays an active part and a part which is, to a certain extent, independent of the quantity and the nature of language experience provided by other people. Its most important feature is the re-organization of empirical material according to principles which are, at least partly, set by the natural cognitive endowment of human beings to adopt a first language and further languages. At the moment, the active nature of this process is generally assumed, in opposition to earlier behavioristic explanations; however, there remain controversies as to the inner mechanism of this activity, and to the extent to which it is (in)dependent of linguistic experience and other variables, e.g. social environment and motivation.[2]

The explanation of the way in which a second language is adopted has gained much insight by differentiating between so-called natural and formal (or: guided) conditions. This has led to the setting up of the dichotomy between 'acquisition' and 'learning'. As the terms reveal, language acquisition is supposed to be triggered off by linguistic contact in natural situations, whereas language learning is supposed to be triggered off by formal teaching. Acquisition is supposed to be a direct, intuitive way of adopting a language, whereas learning uses the means of conscious construction and comparison with rules.[3]

It remains doubtful whether the distinction is a valid one, because there is hardly any natural acquisition environment which does not contain elements of formal guidance, and there is hardly any formal teaching situation which does not contain elements of natural acquisition. As this is so, the tearing apart of elements which actually always occur together, if with varying proportions,

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types of transitivity are ignored, e.g. intensive complementation with measures ("This bag weighs 100 pounds"), the various patterns of complex transitive complementation, and the difference between "He grows tomatoes" and "He grows a beard".

[2] For an early biological description of this view, still in the immediate wake of Chomsky, see Lenneberg (1967); for a comprehensive discussion see Clark and Clark (1977). The historical way of this conception, with reference to language teaching, from Chomsky to a fairly contemporary view is mirrored in the contributions of Oller and Richards (1973).

[3] See Krashen (1982), and in earlier publications.

must at least be questioned as something artificial. This fact should make us assume one basic faculty — rather than two — to adopt a language and then try to analyse the way it works under varying conditions.

On the other hand, this distinction has its value. Observing the way in which people pick up a language which they are not formally taught has made it obvious that the same person with the same mind cannot be reduced to a passive entity under formal learning conditions, an entity which just soaks up and reproduces what the teacher said and, unless he does this correctly, has failed. The distinction has, thus, made it clear that the language learner very likely is an active cognitive entity just as the language acquirer is, and that teachers may have to re-orient their teaching in the light of this insight.[4]

The investigation being presented here is part of a wider program to spread this idea under the heading of 'learner-oriented teaching'. It applies to foreign language teaching in a school within a community where the foreign language is not spoken, this being the situation with which most young Germans are confronted in their first second/foreign language. 'Learner-oriented' means that the learner's way of processing the language experience, which is provided by the teaching (that is the teacher and the teaching material) should set the pattern for the re-organized teaching itself. 'Learner-oriented' does not mean just following the learners' wishes and interests, though they are of small concern for motivation. It means meeting the learners' cognitive personality.[5]

According to the cognitive view explained above, the experience of language data on the part of the learner and the acquirer triggers off an act of recoding, which essentially is an act of generalization. For the subject this act means finding the structure in the utterance, the type in the token and adapting this insight to new utterances. If the act of generalization conforms to the accepted norms of the language, 'correct' utterances are produced; if, however, it deviates from these norms, errors occur which, however, mark a true act of learning. It is this very deviation from the norm which indicates the independent contribution of the subject in the process of interiorization.[6]

There is no essential difference between learning and acquiring in this respect. The difference is to be looked for somewhere else. In the acquisition process the subject himself sets up the hypotheses according to which he forms

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[4] Modern second language acquisition studies were started by Ravem (1968), carried on in the United States by Hatch (1978), Burt and Dulay (1980), and many others; in the Federal Republic of Germany by Wode (1981), Felix (1982), and many others. Instead of a bibliography see Felix (1982:17—18), an overview which lists 66 projects. For 'acquisition' vs 'learning' see Krashen (1982), critical Stevick (1982).

[5] The outline of this program is explained in Krumm (1978) and Bausch and Raabe (1978), Hüllen and Jung (1979: 11—13).

[6] See Corder (1973:256—94), Hüllen and Jung (1979:133—48).

his rules; he extracts these rules from experience. In the learning process the subject is told these rules or they are at least suggested to him by manipulated experience, so he can accept the correct hypotheses right from the start. This is supposed to facilitate the procedure. There is, however, the disturbing fact that this facilitation does not seem to be really successful.

This links up with the general experience that mistakes play a much longer role in language learning than in language acquisition. It is the interlanguage hypothesis [7] which pays tribute to the commonly known fact that learners of a foreign language, acquiring it in school surroundings, normally cannot succeed in reaching a full competence, but only an intercompetence which, however, is not just a limited competence permeated with mistakes, but a semiindependent and systematic language of its own, whose difference from the native speaker's language mirrors the learner's special rules of recoding. The learner's interlanguage is an intersystem between his source and his target language, the model for which are so-called contact languages.

Contrary to learners' interlanguages, true contact languages are stabilized systems which change as all natural languages do, but which nobody wants to change in a certain direction. However, interlanguages are systems susceptible to permanent change in the direction of the native speaker's norm, as long as learning actually takes place. It is only when partial or complete fossilization sets in that stabilization occurs, which, for pedagogical reasons however, is not wanted. Moreover, contact languages are described in terms of their historical growth and their resulting location between two or more source languages, whereas the interlanguage of learners can only be described in terms of individual growth and individual learning. Terms such as language transfer, transfer of training, strategies of second language learning, strategies of second language communication, and overgeneralization have been identified (Selinker 1974).

Terms and corresponding conceptions like the ones mentioned cover a wide range of phenomena and have their merits as well as their shortcomings. Among the shortcomings is the broad generality of these strategies which might almost be said to be applicable to all learning procedures irrespective of the object to be learnt. Transfer of previous knowledge (language transfer), transfer of training, and overgeneralization can be found in mathematical as well as in historical learning or even in any sort of craft training. Speaking of strategies of second language learning and second language communication is of little value unless you specify what these strategies are like.[8] Besides, it is hardly possible to precisely discern language transfer and overgeneralization in a satisfactory way, as most mistakes can be explained both ways.

[7] See the contributions in Schumann and Stenson (1974), where the way from contrastive analysis via error analysis to the interlanguage hypothesis is traced.

[8] See, e.g. Faerch and Kasper (1980).

Among the merits count the denotation of the fact that a learner's intercompetence does not produce an unordered mass of utterances, some of which are right and some of which are wrong. Furthermore, there is the denotation of the fact that the intercompetences of individual learners contain many comparable phenomena which show that there actually are rules at work which apply to all learners irrespective of individual circumstances. Despite its shortcomings and some other difficulties, the investigation being presented here has been located within the context of the interlanguage hypothesis. It rests on the all important assumption that a foreign language is not adopted in the classroom by habitualization, which occassionally goes wrong because of interference (hypothesis of contrastivity), nor in the same way as a first language (hypothesis of identity), but that it is acquired and learned according to genuine regularities.[9]

Guided by the general hypothesis about transitive and intransitive verbs mentioned above, and leaving all queries about the instability, permeability[10], and method of description of interlanguages[11] aside, the investigation was undertaken as an attempt at describing the interlanguage of German learners of English within one particular section of the language to be learned. In order to do this a battery of tests was planned and given to students of the University of Essen, FRG. The basic idea of the tests was that the statistical frequency of one or the other form allows an insight into the prominence and measure of availability of this form within the intercompetence of the German users of the English language who underwent the tests. This is why percentage scores are given which have as their basis (=100%) the total sum of possible utterances (tokens) within each test.

The examinees were chosen at random. Most of them had learned English for nine years before entering university. A few had learned for a shorter, some even for a longer time. They had studied two to eight semesters. So all of them could be considered as 'advanced' in the everyday understanding of the word. This means that the groups of examinees were homogeneous in that everybody had learned the English language as a foreign language during a full school course and was studying at university level. The groups were not homogeneous with respect to individual learning conditions, teaching material, teaching methodology, etc. It was assumed that, at the level of advancement reached, these features could be neglected.

Tests 1 – 4 were given to 40 students in group 1 and another 40 students in group 2. Tests 5 – 9 were given to 32 students in group 1, 19 students in group 2, and 24 students in group 3. The respective groups 1 and 2 in the first

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[9] See Bausch and Kasper (1980).

[10] Tarone, Frauenfelder and Selinker (1976); Adjemian (1976).

[11] For an overview of problems see Knapp-Potthoff and Knapp (1982).

and the second test battery were not identical. Thus, 155 examinees were involved in the investigation. They are supposed to have all the advantages of a random group. There is no reason to believe that some hidden criterion has been in effect when the groups came together. Nevertheless, results of the tests are looked upon as descriptive only for this group, and no generalizations are attempted.

3. Verbs of causativity in English and German

The first part of the project was devoted to verbs of causativity, because, generally, there is a causativity transformation between intransitive and transitive verbs of comparable meanings, as in

(5) to run vs. to run a machine, to die vs. to kill, to be legal vs. to legalize.

The investigation of verbs of causativity was to elucidate the handling of the intransitive vs. transitive dichotomy.

The element *cause* plays an important role in the formation of the English and the German verbal systems.[12] It is a common notion to both languages, and presumably a language universal. Foreign language learners, thus, need not learn the element *cause* in itself, but the use of verbs which contain it in one way or the other. Of these we find four in both languages:[13]

i. ergative verbs, that is transitively used verbs which, without any morphological change, can also be used intransitively and whose transitive version is connected with the intransitive version by a causativity transformation. Examples are in English: *to run/to run a machine, to break/to break a window, to work/to work somebody (hard)*; in German: *anhalten/ein Auto anhalten, beginnen/einen Vortrag beginnen, fahren/ein Auto fahren.*

ii. Lexicalized causative verbs, that is transitive verbs which again are connected with intransitive verbs by a causativity transformation but which differ from ergatives in that they have a different morphological surface structure. The non-causative verbs, as a rule, have a resultative meaning. Examples are in English: *to kill/to die, to fell/to fall, to trip/to stumble*; in German: *fällen/fallen, verschwenden/verschwinden, sprengen/springen.* Lexical restrictions for the use of such verbs may vary more than with reference to the element *cause*, as the German examples show.

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[12] See Lyons (1977:488–94); besides Fodor (1970), McCawley (1971), Fillmore (1971), Babcock (1972), Lakoff and Ross (1972), Kastovsky (1973).

[13] This section follows Lyons (1968:350–71) and Kastovsky (1973); see also Hüllen (1982).

This group can be further broken down into diachronically related pairs and diachronically unrelated pairs like: *to fell/to fall, to set/to sit* and *to kill/to die, to show/to see* etc. (Lipka 1982).

iii. Derived causative verbs, that is verbs morphologically derived from a non-causative basis (adjectives or nouns). The derivational parts are either suffixes as in English *legalize, humidify, soften*; or they are prefixes as in English *enlarge, outlaw, benumb*; or they are zero-morphemes as in the verbs *warm (up), open, jail, pigeon-hole (a letter)*. A particular group of causative prefixes are negatives as in *unsaddle, defrost, disintegrate*. In German, this group is represented mainly by prefixes as in *verfeinern, erbittern, befreien, zerkleinern, unterbrechen*. With suffixes it is only words of foreign origin like *harmonisieren, amerikanisieren, legalisieren* which form derived causative verbs.

iv. Analytical verbal phrases involving a causative auxiliary, that is phrases with verbs like *let, make, have, get*. Examples are in English: *let (us) go*; *(the court) make(s) (bussing) legal*; *(Mary) had (John) come (to the meeting)*; *get (the thing) done*; in German: *fallenlassen, halten lassen, (zum Arbeiten) veranlassen (=antreiben), (bekannt) machen*. It is not possible to discern in all cases such analytical verbal phrases from mere collocations as in *begin to look, catch sight of, set fire to*. It very often is a matter of definition whether the functional verb involved is considered an auxiliary or a full verb (Lipka 1982).

These four groups of causative verbs were incorporated in the tests, without causatives with negative prefixes, however. Structurally speaking, each class of causative verbs has its counterpart in both languages. Thus, the tests were to find out the interlanguage profile of examinees at a linguistic point where structural parallelism is to be found between source and target language.

4. Description of tests 1 — 4 and results[14]

Test 1 was devoted to language production. It demanded translation of non-contextualized German sentences into English. The productive skill of the candidates was, thus, directly tied to their German source language. Examples of test items are:

(6) Diese traurige Erfahrung ließ ihn beträchtlich altern.

(7) Seine schlechten Manieren verärgerten mich.

Sentences were chosen in which all four classes of causative verbs could be used.

Test 2 was again devoted to language production, but without any direct

[14] These tests are also described in Hüllen (1982), however not tests 5—9.

reference to German. It demanded construction of sentences out of two elicitative phrases which denoted an agent/instrument and a result. Examples of test items are:

(8) The doctor → the little boy recovered
(The doctor healed the little boy.)

(9) The sun → he almost went blind
(The sun almost blinded him.)

Here again verbs of all four causative classes could be used.

Test 3 was devoted to understanding as a receptive skill. It demanded the marking of several English translations of German sentences, following the multiple choice method. Examples of test items are:

(10) *An dem Wagen platzte ein Reifen.*
1. On the car a tyre was burst.
2. The car burst a tyre.
3. On the car one of the tyres was burst.

(11) *Früher pflegten die Ärzte die Leute zur Ader zu lassen, wenn sie krank waren.*
1. Formerly doctors used to bleed people when they were ill.
2. Formerly doctors used to draw blood from people when they were ill.
3. Formerly doctors used to make people draw blood when they were ill.

The two examples show that more than one answer could be right; in fact there were items in which all three answers and others in which no answer were /was correct. The sentences to be recognized again contained all four classes of causative verbs.

Test 4, the last of this series, was again devoted to language understanding. It demanded differentiation between sentences whose translation into German contained the verb *lassen*. Examples of test items are:

(12) The teacher asked John to repeat the sentence.

(13) The teacher made John repeat the sentence.

(14) The teacher got John to repeat the sentence.

The following results were found:

In *test 1*, both groups of candidates preferred analytical phrases to lexicalized causative verbs, and they distinctly preferred these two groups to ergatives and morphologically derived verbs. The numbers in *table 1* give the percentage of causative verbs actually used — irrespective of correctness — in relation to the possible and total number of correctly used verbs. The percentage score shows that examinees in both groups exploit possible analytical phrases more than lexicalized causatives, and these two groups more than ergatives and morphologically derived verbs.

This result is underlined by the following observation: Nearly all sentences

could be translated in various ways. E.g. *Er ließ weiße Mäuse frei, um die Pferde in Panik zu versetzen* could be translated into an analytical phrase (*make panic, cause to panic*), into an ergative (*panic*), or into a morphologically derived verb (*terrify, frighten*). If there was *no* alternative to an analytical phrase in a test item, the examinees always actually used it. If there was *one* alternative, this was hardly ever used. In item 17, for example, examinees used 87.50% English analytical phrases for *arbeiten lassen* and only 2.50% the possible ergative *to work somebody*, and this in both groups. If there were *two* alternatives, candidates again preferred the analytical construction, the other two possibilities having a share of between 10 and 30% of the translations.

This indicates that the choice of verbs in the translated sentences is not accidental, but the result of a general tendency to express the notion *cause* preferably in analytical and lexicalized forms, and then *longo intervallo* with ergatives and morphologically derived verbs.

The results of *test 2* confirm this. The fact that the significant caesura here is not between lexicalized causatives and ergatives, but between analytical phrases and the rest, does not contradict the general tendency. *Table 1* again shows the percentage score. For explanatory reasons, these results of *test 1* and *test 2* can be discussed from yet another angle.

Test 1 contained 6 items with analytical phrases (*dazu bringen etwas zu tun, freilassen, zum Lachen bringen, totmachen, spazierenführen, in Panik versetzen*) and 6 items with others (*versetzen, verärgern, bringen, blank putzen, heben, werfen*). This was done in order to mirror the fact that analytical phrases seem to be much more frequent in German usage than the rest. The result might, therefore, lead to the assumption that candidates chose so many analytical forms because more of them were offered. In *test 2*, however, where examinees had to construct sentences out of elicitations and where no causatives were given at all, they preferred analytical phrases even more distinctly. This can only be explained by assuming that for the German learner of English it is the analytical phrase which comes to mind first of all when there is a need to express the notion of *cause*, irrespective of how many and which expressions are given.

The higher percentage of lexicalized, ergative and morphologically derived verbs in *test 1* as compared to *test 2* looks like being a transfer effect from German into English, because the percentage is so much lower in *test 2* where no German words were given at all.

If constructions in *test 2* allowed several possibilities, usage of the four groups of causatives was in agreement with what was explained about the usage of analytical phrases in *test 1*.

The picture changes, however, when the percentage of *correctly* used verbs is regarded in relation to the possible total number of correct instances. *Table 2*

shows that in *test 1* the highest percentage of correct uses is located with ergatives, then with morphologically derived verbs, with lexicalized verbs, and with analytical phrases only in the last position. Findings in *test 2* are slightly different in that morphologically derived verbs now hold the first position, ergatives the second and analytical phrases the third and lexicalized verbs the last one.

The following explanation offers itself for this result: Morphologically derived, ergative and lexicalized verbs with the element *cause* are learnt and memorized by German learners as distinct lexical items, though in a relatively small number. This means that they are rarely used, but *if* they are used, they tend to be used correctly. The students' distinct preference for analytical phrases seems to betray a more creative attempt by German learners to cope with the notion *cause* in English, which depends on language acquisition and which is applied fairly frequently, but which has a high potential of errors. The difference between acquisition and learning, in this case, shows up in the reciprocity of frequency and correctness of use.

Test 3 demanded language recognition. From *table 3* it is obvious that the results of this test are in agreement with what has been found so far. However, the results are not as clear cut as in *tests 1* and *2*. Examinees recognized analytical phrases and lexicalized words best with hardly any difference; ergatives and morphologically derived verbs follow in one group with no difference at all. This result may have been distorted by the fact that for the multiple choice decision 9 analytical phrases and 8 ergatives, but only 4 lexicalized causatives and 1 morphologically derived verb were given. At least the missing difference between the latter two can be accounted for by the low numbers of items. So the result of *test 3* may not be really dependable. Still, it does not contradict the results of *tests 1* and *2*.

It seems likely that the general preference for analytical phrases is result of the fact that in many cases Germans prefer a phrase such as this, where the test items gave some other type of causative verbs. This is particularly clear with ergatives, that is with verbs which can be used transitively and intransitively and which as transitive verbs have causative meaning. The German language tends to use differently lexicalized forms for the two. The relation between intransitive and transitive *grow* (*wachsen, anbauen*), *run* (*laufen, leiten, verwalten*), *walk* (*spazierengehen, ausführen*), *work* (*arbeiten, zur Arbeit antreiben*) and numerous others all make use of separate lexical entries in the German lexicon.

As there is no statistical investigation available which tries to count verbs of causativity, broken down into the four groups, in the lexica of the two languages, it is not possible to distinguish whether the assumed transfer procedure from German language use into English was due to the items chosen or is a general fact. The agreement of results of *tests 1, 2* and *3* with

the initial hypothesis, however, suggests that they have a general (and not only an item dependent) validity. Obviously, our German learners of English did not realize that a causativity transformation from an intransitive to a transitive verb is possible in English in a very high number of cases and, actually, is the reason for the particular flexibility of its verb system. As they did not realize this, they tended to equate the German and the English *intransitive* form and when compelled to express the notion *cause*, that is the transitive form, went back to analytical constructions and neglected others.

Causativity, as a rule, is taught in German schools as a structural problem, particularly in connection with *let*, *make*, *have* as verbs denoting *zulassen* and *veranlassen* and structured with bare infinitives. In this context *let* and *make* are usually understood as a contrastive pair, the one denoting 'allow', the other 'cause'. The numbers of *table 4*, referring to the results of *test 4*, show that recognition of *let* and *make* is much better than recognition of *have* with causative meaning. Obviously, the similarity of English *let* and German *lassen* is responsible for this, an explanation which was confirmed by the students in subsequent discussion. Furthermore, for some students, *make* seems to acquire the role of a universal expression for cause, very likely influenced by German colloquial expressions like *aufmachen* for *öffnen*, *zumachen* for *schließen*, *wegmachen* for *do away with*, *saubermachen* for *clean* etc.

The main result, then, of *tests 1—4* is a general tendency of our German examinees to use analytic constructions for the transitive form of English verbs which function transitively and intransitively and which in their transitive version have a causative meaning. This tendency can be accounted for by a process of transfer from German and includes a process of overgeneralization. However, this transfer can have already influenced the way in which the English language was taught to our examinees at German schools, and so a transfer of training can be stated as well.

There is a chance to account for all this by a still broader regularity. Observations in other fields of language learning and language use suggest that analytical expressions can be looked upon as a communicative strategy employed in situations whenever it is difficult or too tiresome to find the lexeme proper. Such situations occur in first language acquisition and, consequently, analytical phrases are symptomatic for child language. They occur in foreign language learning as our tests show. They also occur in language performance under difficult circumstances and in sloppy everyday language. One of many other possible examples in German is the occurrence of *würde+verb* instead of the subjunctive. Such use of combinations seems more economical for the human mind than the search for the lexeme proper or the conjugated form proper. This, however, seems to be stored as the result of a deliberate learning process and, consequently, is used rarely but correctly.

5. Description of tests 5—9 and results

The second battery of tests was devised and given to candidates in order to possibly underpin these results with more specialized ones which should yield an insight into how our German learners of English handle verbs which are ergatives in both languages. The aim was to find out how these verbs, which contain the transitive/intransitive dichotomy in one lexeme, are represented in their interlanguage.

Test 5 was devoted to language production. It demanded translation of non-contextualized German sentences into English in which 8 verbs (*move, lift, heighten, drag, rotate, withdraw, shake, look*) were used transitively as well as intransitively. All of these verbs have a German equivalent which functions transitively and reflexively. Distractors (that is sentences to be translated, which did not count in the test) were inserted in order to hide from the examinees that they were expected to use each verb twice. Examples of test items are:

(15) Er bewegte sich langsam, als ob sein Fuß ihm wehe tat.
(16) Die vier Männer bewegten das schwere Klavier ohne Schwierigkeiten.
(17) Die Spannung im Saal erhöhte sich von Stunde zu Stunde.
(18) Ein Besuch im Pub vor dem Theater erhöht das Vergnügen.

Test 6 was again devoted to language production. 8 German ergative verbs (*fahren, segeln, rollen, wenden, kippen, parken, anhalten, bremsen*) were given, out of which examinees had to construct two sentences with each one according to their momentary intuition. The aim was to find out whether German speakers use the German verbs more frequently in their transitive or their intransitive function.

Test 7 was devoted to the same task with reference to the 8 English verbs which test 5 already had asked for.

Test 8 was devoted to language understanding. It demanded the recognition of correct and wrong sentences from a set of 4 which all contained the same ergative verb. Examples of test items are:

(19) 1. The door locked and they were caught in the trap.
2. Somebody locked the door and they were caught in the trap.
3. The door was locking and they were caught in the trap.
4. The door was being locked and they were caught in the trap.

(20) 1. We sailed the boat to Malta.
2. The ship has been sailing in the Mediterranean for many years.
3. Make the boat be sailing as quietly as possible.
4. The boat had been being sailed to the lonely island years ago.

The examples show that here, too, distractors are inserted in order to

camouflage the actual problem, that is the intransitive vs. the transitive use of one and the same verb. Examinees were made to believe that their knowledge of tenses and aspects was being tested, whereas the only aim was to find out whether they were able to recognize correctly the use of the transitive or the intransitive variants of ergative verbs.

Test 9 was again devoted to language understanding. It demanded matching of English and German verbs which are almost equivalent in terms of translation. There were English verbs without any German equivalent, English verbs with one German equivalent and English verbs with two German equivalents. Examples of test items are:

(21) blame = beschimpfen
(22) slide = 1. schieben, 2. gleiten

For the purposes of the test, only the last group was important. Apart from the item given, the following words were used: *swing/schwingen, schwenken; sink/sinken, versenken; spill/verschütten, überfließen; project/(vorwärts) werfen, (vorwärts) fliegen; spring/springen, sprengen; block/feststehen, festhalten; pour/ausschütten, ausfließen.*

The following results were found:
In *test* 5 the transitive variant of 4 from 8 verbs asked for *(shake, lock, drag, withdraw)* was more often used correctly than the intransitive variant. *Table 5.1* gives the percentage score; as keeping the three groups apart would make a complicated picture, the results have been pooled and, thus, the table also gives the percentage score for the three groups collapsed into one.

The table shows that the correct use of transitive *shake, lock, drag, withdraw* is more frequent than that of the intransitive variant of the same verb. However, with *move* and *lift* there is only the minimal difference of 1.33% (for *move*) and 2.66% (for *lift*) in the reflexive use. This means for all practical purposes that these two verbs are handled equally well by examinees in both their variants. Furthermore, the result for *rotate* and *heighten* can be neglected, because they were obviously next to unknown to our students. So we find that from the seven verbs chosen five were used correctly more often in their transitive variants than in their reflexive variants and two almost equally.

Of course, examinees did not only use those verbs which had been envisaged as candidates for correct translation. *Table 5.2* gives the numbers of verbs used in addition to the eight originally envisaged, and shows that the transitive ones now outdistance the intransitive ones even more clearly than in Table 5.1. *Move* + other verbs is on one level in both variants. Only *heighten* + other verbs is odd, all other verb clusters are on the transitive side.

In *Table 5.1* the percentage score of correct translations is less than half

for all verbs except *move* and *shake*. This means that the availability of all verbs (except *move* and *shake*) must be considered low. This, of course, is different when the results for all verbs used by candidates are collapsed as in Table 5.2. Here the percentage score of correct translations is more than half for all verbs (that is more than half the total number of possible correct translations) and the availability of these verb clusters, taken together, can be considered high.

It was the task of *test 6* to construct two German sentences around one German ergative verb in order to find out how often the transitive or the intransitive variant of the verb would be used for the first or the second sentence. The reason behind this was the assumption that the first sentence is the one that comes to mind more quickly than the second one. This particular variant of the ergative verb would then be the one more readily available. The results in *Table 6* (and for *test 7* in *Table 7*), however, show that candidates preferred the same variants of verbs in the first *and* the second position. This is so with all German verbs except *kippen* and *rollen* (in group 2). For the English verbs used in *test 7* the distribution is similar. *Shake, shut, lift, heighten, withdraw, drag* as transitive verbs are used more frequently in the first and second position, *move* and *rotate* as intransitive verbs.

As this is so, there was no use in keeping the results for the first and second sentences apart. So not only were the groups collapsed into one (as in test 5), but also the sentences 1 and 2.

Table 6 shows that 5 German verbs are more frequently (and correctly) used in their intransitive variants and 3 verbs in their transitive variants. A close look at the results shows that the predominance of intransitive variants is even heavier then the relation 5 : 3 suggests because of the following reasons:

The difference between the intransitive and the transitive variant of *kippen* is only 4.00% and can be neglected. The results for *parken* clearly stress that it is on the transitive side. However, the item proved to be poorly chosen because many sentences had to be understood as having a transitive verb with its object deleted (e.g. *Er parkt an der Ecke*). So in this case numbers must be admitted to be unreliable. The only real exception, then, is *wenden* as used more frequently in its transitive variant.

Test 7, which set the same task with reference to English verbs as *test 6*, led to opposite results. With the exception of *rotate, move*, and *withdraw* all verbs are used more frequently in their transitive variant. Because of its low percentage score, *withdraw* can be neglected. As this test used the same lexemes as *test 5*, the results of both are in harmony with each other. *Tests 5, 6*, and *7*, then, show that our German learners of English prefer the transitive

variant of ergatives in the English language and the intransitive variant of ergatives in their own German language.

For the English verbs this is confirmed by *test 8*. *Table 8* shows that 7 out of 8 verbs are more often correctly recognized in their transitive variant than in their intransitive variant. With *sail* the difference between the two variants is relatively small (9.33%) which means that for all practical purposes this verb is equally well recognized in its two variants.

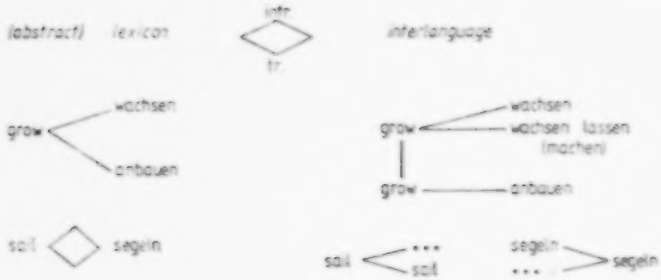
Test 9 re-introduces the first group of verbs into the testing process, because English ergative verbs had each to be matched with two different German lexemes. *Table 9* shows that the matching is more successful on the intransitive side with 4 verbs (*swing, sink, slide, spring*) and more successful with the other 4 verbs (*pour, spill, block, project*) on the transitive side. Percentage scores for *block* and *project*, however, are so small that they can be neglected. With 4 entries in the intransitive column and 2 entries in the transitive column the results of test 9 are in harmony with the first three tests, but in disharmony with tests *5—8*.

A comparison between *test 6* and *test 9* can provide us with a hypothetical explanation. If the intransitive variant of an ergative verb is more readily available to a German speaker in his own language, as *test 6* showed, it is understandable that the intransitive variant of an English ergative is more successfully matched by him than the transitive. This applies to the tasks of tests *1—3* and *test 9*. Here, obviously, a process of interference takes place which is not bound to lexemes but to the possibilities of their functional usage.

6. Concluding remarks

The randomly chosen group of German learners obviously did not exploit one important possibility of the English verbal system, namely to use verbs intransitively as well as transitively without any change of surface structure. In the case where an English ergative verb is to be equated with two different German lexemes, obviously the link between the two intransitive forms is strongest. So *grow* is primarily used as *wachsen*, but not as *anbauen*. If the transitive form and its causative meaning is required, users of the interlanguage fall back on analytical phrases.

In the case where an English ergative is to be equated with a German ergative, obviously no straight link exists at all. Whereas the German intransitive variant is more prominent in the mind, the English transitive variant takes this same place. This result can be visualized thus:



An attempt to explain this interlanguage profile with the help of the interlanguage hypothesis proves difficult because it soon becomes visible that the terms offered here are too general vis-à-vis concrete data. Transfer of training can be drawn upon as a possible means of explanation. This would make an analysis of teaching material necessary. If it could be proved that the material used in German schools prefers the intransitive variant with the one group (English ergatives not equating German ergatives) and the transitive with the other (English ergatives equating German ergatives) we still would have to go on asking why the German teaching material is what it is. We might account for this by the differences in the verbal systems of the two languages, and thus give an answer in the area of transfer of language. Transfer of training and transfer of language, thus, prove to be interlinked.

Something very similar turns out to be the case with strategies of foreign language communication and strategies of foreign language learning. The results of the first tests showed a marked difference between the handling of foreign language items which are the results of learning and the more creative handling of other items which are the results of acquisition. The latter used the analytical paraphrase as a communicative strategy. Learning vs. acquisition are certainly to be looked upon as two possible strategies of dealing with a foreign language. Thus a specific communicative strategy in the foreign language is directly dependent upon a certain learning strategy.

Finally, overgeneralization as an independent means of shaping an interlanguage proves ill chosen, because there is an act of overgeneralizing in each of the before mentioned strategies. Obviously it is not enough to only enumerate strategies as the interlanguage hypothesis does. It is essential to find out what causes the one or the other strategy to be chosen and how they are interlinked with each other. *Acquisition* and *learning* seem to have a powerful hand in this, if they are not understood in the narrow dichotomy of the monitor-theory but as two powerful mechanisms which organize the whole system of coming to grips with a second language.

This can be proved in an explanation of the results of the second sets of

tests. Naturally, the availability of the intransitive variants of German ergatives in German minds is result of first language acquisition. However, the availability of the transitive variants of English ergatives in German minds can well be explained as result of learning. Non-causative (intransitive) verbs in a learning context and in isolated sentences, as they occur in such contexts, tend to appear pragmatically anomalous for the learner with reference to the instigator of the happening.[15] For him, things don't just sail, drive, or shake without somebody or something causing them to do so. A learner will prefer giving an unmarked full sentence, that is the transitive verb with the agent, where the acquirer suffices himself with the shorter sentence without agent because he knows he can rely on the text. The learner prefers to store the full pattern where the acquirer does not bother. It is not clear whether this is a transfer of training, a learning strategy or a strategy of communication in the foreign language. Our investigation, then, ends with criticism of the two most powerful theories that try to explain foreign language acquisition/learning at the present moment, the interlanguage theory and the monitor theory. Though both of them grasp important phenomena of adopting a second language, they draw up far too simple models for explanation. As often, we find that things are more difficult and more intricate.[16]

Table 1: causative verbs used, in percentage scores relative to the possible total number of correctly used verbs

	analytical	*lexical*	*ergative*	*morphological*
Test 1:				
Group I.	89.37	63.92	17.86	11.88
Group II.	82.50	57.81	23.57	7.50
Test 2:				
Group I.	81.56	8.50	9.50	4.17
Group II.	81.25	12.50	13.00	0.83

Table 2: causative verbs used *correctly*, in percentage scores relative to the possible total number of correctly used verbs

	analytical	*lexical*	*ergative*	*morphological*
Test. 1:				
Group I.	62.47	82.12	96.00	89.47
Group II.	61.62	85.41	96.97	83.33
Test 2:				
Group I.	76.63	52.94	94.74	100.00
Group II.	65.38	56.00	100.00	100.00

[15] Kellerman (1982), and private communication.

[16] I thank E. Junk for helping with the tests and calculating the tables, R. Grotjahn for good advice in statistical matters and R. Brunt for his comments on the English version of this paper.

Table 3: causative verbs recognized correctly, in percentage scores relative to the possible total number of correctly recognizable verbs

	analytical	*lexical*	*ergative*	*morphological*
Test 3:				
Group I.	67.22	63.75	45.00	45.00
Group II.	65.83	60.00	47.19	47.50

Table 4: translation of *let, have, make* into German, in percentage scores

	correct		incorrect	
	"lassen"	+	−	ø
let				
Group I.	55.00	30.00	15.00	—
Group II.	60.00	37.50	2.50	—
have				
Group I.	52.50	—	35.00	12.50
Group II.	50.00	5.00	22.50	22.50
make				
Group I.	65.00	12.50	20.00	2.50
Group II.	20.00	52.50	20.00	7.50

+ = correct paraphrase; − = incorrect paraphrase; ø task not understood

Table 5.1: correct translations of transitive and reflexive variants of German verbs into English, in percentage scores relative to the total number of possible correct translations within each group of examinees.

	group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
move	**93.75**/100.00	100.00 / **94.72**	100.00 / **100.00**
shake	**93.75** / 15.62	**89.46** / 5.26	**83.43** / **29.17**
lift	40.63 / 43.75	42.10 / 57.88	37.50 / **29.17**
lock	**34.37** / 0.00	42.10 / 15.79	41.67 / **29.17**
drag	0.00 / 0.00	42.10 / 0.00	12.50 / 0.00
withdraw	9.37 / 3.13	31.58 / 5.26	8.33 / 0.00
heighten	3.13 / 3.13	5.26 / 0.00	0.00 / 4.17
rotate	3.13 / 6.25	0.00 / 0.00	0.00 / 0.00

Groups collapsed into one, in percentage scores relative to the total number of possible correct translations (dominant variant bold-faced).

	trans.	intrans.
move	97.33	**98.66**
shake	**89.33**	17.33
lift	40.00	**42.66**
lock	**38.66**	13.33
drag	**14.66**	0.00
withdraw	**14.66**	2.66
heighten	1.33	**2.66**
rotate	1.33	**2.66**

Difference between transitive and reflexive variant:

move	1.33
lift	2.66
heighten	1.33
rotate	1.33

Table 5.2: correct translations of transitive and intransitive variants of German verbs into English, in percentage scores relative to the total number of possible correct translations within each group of examinees.

	group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
move+1	96.88 / 100.00	100.00 / 94.72	100.00 / 100.00
shake+0	93.75 / 15.62	89.46 / 5.26	83.34 / 29.17
lift+9	96.88 / 96.88	89.46 / 84.20	91.66 / 70.83
lock+2	100.00 / 84.37	94.72 / 78.94	95.83 / 70.83
drag+9	56.25 / 84.37	78.94 / 26.31	45.84 / 41.67
withdraw+6	59.38 / 46.88	57.88 / 63.16	33.33 / 20.83
heighten+6	43.75 / 78.13	57.88 / 63.16	25.00 / 66.66
rotate+6	90.63 / 84.37	89.46 / 84.20	75.00 / 66.66

Groups collapsed into one, in percentage scores relative to the total number of possible correct translations (dominant variant bold-faced).

	trans.	intr.
move+1	**99.66**	**99.66**
lock+2	**97.33**	**78.66**
lift+9	**93.33**	**85.33**
shake+0	**89.33**	17.33
rotate+6	**85.33**	**78.66**
heighten+6	41.33	**78.66**
drag+9	**58.66**	**56.00**
withdraw+6	**59.66**	43.66

Difference between transitive and intransitive variant:

heighten	29.33

Table 6: first and second construction of German sentences around German ergative verbs, in percentage scores relative to the total number of possible constructions within each group of examinees.

		group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
wenden	1.	68.75 / 9.37	57.88 / 0.00	58.33 / 8.33
	2.	46.88 / 9.37	47.36 / 10.52	50.00 / 4.17
parken	1.	65.63 / 21.87	100.00 / 0.00	79.17 / 16.66
	2.	50.00 / 37.50	78.94 / 10.52	79.17 / 16.66

kippen	1.	59.38 / 34.37	42.10 / 47.36	41.67 / 54.17
	2.	50.00 / 40.63	47.36 / 42.10	37.50 / 45.84
anhalten	1.	31.25 / 62.50	31.56 / 57.88	29.17 / 54.17
	2.	37.50 / 53.13	21.05 / 47.36	25.00 / 45.84
fahren	1.	15.62 / 81.25	15.79 / 68.42	25.00 / 66.66
	2.	9.37 / 87.50	21.05 / 78.94	4.17 / 79.17
bremsen	1.	9.37 / 75.00	10.52 / 84.20	29.17 / 54.17
	2.	18.75 / 71.88	26.31 / 52.62	12.50 / 54.17
segeln	1.	3.13 / 93.75	0.00 / 89.46	0.00 / 91.66
	2.	6.25 / 87.50	0.00 / 89.46	0.00 / 95.83
rollen	1.	0.00 / 68.75	21.05 / 63.16	20.83 / 66.66
	2.	18.75 / 68.75	26.94 / 26.31	29.17 / 50.00

Groups collapsed into one and sentences 1 and 2 collapsed into one, in percentage scores relative to the total number of possible constructions (dominant variant bold faced).

	trans.	intrans.
segeln	2.00	**91.33**
fahren	14.66	**78.00**
bremsen	17.33	**66.00**
rollen	19.33	**39.33**
anhalten	30.00	**54.00**
kippen	**47.33**	43.33
parken	**72.66**	19.33
wenden	**55.33**	7.33

Difference between transitive and intransitive variant:

wenden	48.00
parken	53.33
kippen	4.00

Table 7: first and second construction of English sentences around English ergative verbs, in percentage scores relative to the total number of possible constructions within each group of examinees.

		group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
shake	1.	100.00 / 0.00	89.46 / 0.00	95.83 / 0.00
	2.	90.63 / 3.13	78.94 / 10.52	75.00 / 16.66
lock	1.	90.63 / 3.13	89.46 / 0.00	87.50 / 0.00
	2.	78.13 / 9.37	68.42 / 0.00	70.83 / 0.00
lift	1.	68.75 / 15.62	84.20 / 5.26	83.34 / 4.17
	2.	56.25 / 15.62	84.20 / 0.00	83.34 / 0.00
heighten	1.	37.50 / 15.62	47.36 / 15.79	33.33 / 0.00
	2.	40.63 / 6.25	42.10 / 10.52	16.66 / 0.00
withdraw	1.	34.37 / 28.13	57.88 / 31.58	37.50 / 20.83
	2.	25.00 / 21.87	47.36 / 21.05	29.17 / 12.50
drag	1.	28.13 / 0.00	78.94 / 26.31	33.33 / 0.00
	2.	21.87 / 3.13	73.68 / 0.00	25.00 / 0.00

move	1.	15.62 / 81.25	36.84 / 63.16	23.00 / 73.00
	2.	21.87 / 71.88	42.10 / 52.62	27.50 / 54.17
rotate	1.	0.00 / 78.13	0.00 / 84.20	0.00 / 62.50
	2.	3.13 / 56.25	0.00 / 63.16	0.00 / 54.17

Groups collapsed into one and sentences 1 and 2 collapsed into one, in percentage scores relative to the total number of possible constructions (dominant variant bold-faced).

	trans.	intrans.
shake	**99.33**	4.66
lock	**81.33**	2.66
lift	**74.66**	8.00
drag	**99.33**	4.00
heighten	**94.66**	8.00
move	28.00	**62.66**
withdraw	10.66	**22.66**
rotate	0.66	**66.66**

Difference between transitive and intransitive variant:

rotate	65.34
move	40.00

Table 8: recognition of correct sentences, in percentage scores relative to the total number of possible correct sentences within each group of examinees.

	group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
steer	100.00 / 65.63	100.00 / 78.94	95.83 / 66.66
stick	100.00 / 93.75	94.72 / 100.00	87.50 / 87.50
rock	96.88 / 81.25	94.72 / 73.68	100.00 / 95.83
turn	96.88 / 78.13	89.46 / 94.72	95.83 / 70.83
lock	96.88 / 25.00	100.00 / 31.58	100.00 / 25.00
ride	90.63 / 100.00	94.72 / 89.46	100.00 / 100.00
sail	90.63 / 100.00	63.16 / 73.68	83.34 / 91.66
fly	84.37 / 84.37	94.72 / 78.94	100.00 / 75.00

Groups collapsed into one, in percentage scores relative to the total number of possible correct sentences (dominant variant bold-faced).

	trans.	intrans.
steer	**98.66**	69.33
ride	**96.66**	97.33
rock	**97.33**	84.00
turn	**94.66**	93.33
stick	**94.66**	90.00
fly	**92.00**	90.00
lock	**88.00**	26.66
sail	81.33	**98.66**

Difference between transitive and intransitive variant:

sail	9.33

Table 9: correct equating German intransitive and transitive/causative verbs with English ergatives, in percentage scores relative to the total number of possible correct equations within each group of examinees.

	group 1 (tr./intr.)	*group 2* (tr./intr.)	*group 3* (tr./intr.)
project	12.50 / 0.00	15.79 / 0.00	4.17 / 0.00
spring	3.13 / 71.88	0.00 / 57.89	4.17 / 41.67
spill	28.13 / 6.25	47.36 / 10.53	25.00 / 8.33
pour	62.50 / 15.62	52.63 / 5.26	41.67 / 0.00
slide	6.25 / 75.00	0.00 / 47.36	4.17 / 54.17
block	18.75 / 21.87	26.31 / 10.53	8.33 / 0.00
swing	15.62 / 93.75	21.05 / 89.48	8.33 / 54.17
sink	12.50 / 90.63	21.05 / 87.94	20.83 / 62.50

Groups collapsed into one, in percentage scores relative to the totalnumber of possible correct equations (dominant variant bold-faced).

	trans.	*intrans.*
swing	14.66	**89.99**
sink	17.33	**78.66**
slide	4.00	**61.33**
spring	2.66	**58.66**
pour	**53.33**	8.00
spill	**33.99**	8.00
block	**17.33**	12.00
project	**13.66**	0.00

Difference between transitive and intransitive variant:

pour	45.33
spill	24.00
block	5.33
project	13.66

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ENGLISH IN SPEECH AND WRITING:
A Project Report[1]

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1. Introduction

The research project The Survey of Spoken English ended in the spring 1981, and a new project, English in Speech and Writing, with the Swedish acronym ETOS, was started in 1981 as a follow-up of the previous one. The director of the new project, which receives financial support from the Swedish Research Council for the Humanities and Social Sciences, is Gunnel Tottie.

The aim of ETOS is to achieve an explicit description of important differences between spoken and written English, ie. a description which will contrast the use and non-use of various linguistic features in the two media. In the descriptions of spoken language presented by eg. Crystal and Davy (1975) and Brown (1977) the contrast with written language is present, but more often than not it is implicit, ie. differences between speech and writing are not spelled out in detail. It is taken for granted that eg. expressions like *you know* or *well* are speech-specific, and their uses are described in some detail, but the authors do not discuss why these and other expressions are speech-specific, or what written language uses instead, if anything.

ETOS is not the first research project contrasting spoken and written language. Earlier projects at Lund University have dealt with Swedish language material, and there are several ongoing projects in the United States, eg. at Berkeley University, California, where Wallace Chafe has studied 'maximal differentiated styles: informal spoken language and formal written language' (Chafe 1982).

[1] I am indebted to the following persons who have not only commented on the report but also contributed with material and provided results from their own research: B. Altenberg, L. Hermerén, J. Svartvik and G. Tottie.

Apart from these projects, comparatively few earlier studies have been devoted to the differences between speech and writing. For lack of adequate data, especially from spontaneous spoken discourse, most of these have been limited in aim and scope and the results have been fairly trivial (for references see Tannen 1982).

2. *Research goals*

What characterizes ETOS is that we take a functional approach in the full sense of the word, addressing problems concerning the grammatical as well as pragmatic functions of linguistic items. The research goals of ETOS can be summarized under the following headings:

- *From form to function*
  What function(s) – grammatical or pragmatic, does a particular item (or class of items) fulfil in speech and writing? For instance, how are negative expressions used? How are modal verbs or logical connecters used?
- *From function to form*
  Which linguistic items can be used to fulfil a particular function? For instance, what do adverbials look like in speech and writing? Do they consist mostly of adverbs (as *often, there, why*), of prepositional phrases (as *on Monday, in the bin, for what reason*) of or adverbial clauses (as *when I saw him, where you were sitting, because I was angry*)? How are modal meanings expressed? Are they expressed mostly by modal verbs (as *he can't pay his debts*) or by other means, (as in *he has no means of paying his debts*)?
- *Quantification*
  What differences are there in the functions required by speech and writing? It seems obvious that there must be more questions in speech, but what about negation, modality, adverbials? Is there more or less of any of these categories, and are the types of negation, modality or adverbial expressions the same or different in the two varieties? It would seem natural to expect more expressions of obligation and permission in speech than in writing, but what are the proportions? And what about the other modalities?
- *Information structure*
  How are speech and writing organized, respectively? We know that well-organized sentences of the standard grammar-book type are hard to find in spoken language. But what exactly is it that characterizes spoken language then? How is information conveyed, and by means of what structures?

— *Explanation*
Ultimately, we want to know the reasons for the differences we find. Are they due to the differences in communicative situations between speech and writing, or to psychological factors, either on the production or the perception side? These are complicated matters where we can only hope at present to come up with plausible hypotheses and educated guesses.

3. Spoken and written material

It is clear that there are many variants of spoken and written communication, variants which may be regarded as points on a scale ranging from 'most typical' to 'least typical' of each medium. We have chosen to study what we deem to be the most typical variants of each medium, viz spontaneous conversation and non-fictional informative prose. It seemed to us that these variants would provide the most fruitful contrasts. They are maximally contrasted not just through medium but because of the situations in which they are used, as well as the purposes they serve. Conversation is used in human interaction with at least two participants, and its purpose is not normally restricted to the acquisition or imparting of information. We also indulge in conversation to fulfil our need for social interaction with other human beings (phatic communion) conveying at the same time our attitudes and emotions by means of gestures, voice quality, etc. Usually, too, we can rely to a large extent on the situational context to provide clues to what we mean, and we therefore often need to be less explicit than when we write. Moreover, when we converse, we are normally pressed for time, in the sense that we plan and produce our linguistic output simultaneously.

The situation is vastly different when we communicate in writing, especially when we produce informative prose. Our purpose is precisely to inform. We usually have time to plan our message carefully before committing it to the written word. The recipient of the message is not normally present, and we cannot therefore rely on the situational context to provide him with clues concerning meaning. We are thus forced to be more explicit, and to express our message in the clearest possible terms, as we cannot check how it is received.

Choosing conversation and informative prose to represent the spoken and written media also had practical advantages. Large collections of linguistic material are necessary to carry out the kinds of research that we wish to undertake, and we are fortunate enough to have access to such collections of material stored on computer tape. The corpora we work with are the London-Lund Corpus of English Conversation, abbreviated LLC (published in part

in Svartvik and Quirk 1980), and the Lancaster-Oslo/Bergen Corpus, abbreviated LOB. Both of these corpora contain exclusively British English of comparatively recent date: LLC is based on recordings mainly from the sixties, and LOB contains printed material from 1961.

3.1 The London-Lund Corpus of Spoken English

LLC is a corpus of educated spoken British English. It is part of the large (spoken and written) material collected — chiefly in the 1960s — at the Survey of English Usage under the direction of Randolph Quirk, University College London (App 1). In 1975, the spoken material, which had been analysed prosodically and transcribed on paper slips in London, was put at the disposal of the Survey of Spoken English under Jan Svartvik at Lund University. The material has been transferred to computer tape and is now available for further analysis in machine-readable and printed form. The corpus comprises 87 texts of about 5.000 words each, or almost half a million words in all, and represents a variety of speech situations (conversation, radio interviews, public speeches, etc (see App 2)).

LLC is available for research in three versions:

1. magnetic tape for computer processing
2. printed version of running text: subgroup A (in Svartvik and Quirk (1980); see App 3)
3. KWIC concordance on computer tape: subgroups A—H

The printed version of the running text consists of surreptitiously recorded conversation (subgroup A: 34 texts comprising about 170.000 words; App 2—3). The concordance is also available at the Survey in a printout copy. There are also printouts of alphabetical and rank-ordered frequency lists.

For details on the corpus, see Svartvik and Quirk (1980) and Svartvik et al. (1982).

3.2 The Lancaster-Oslo/Bergen Corpus of British English

LOB is a British English equivalent of the Brown Corpus (BC), which is a collection of American English produced at Brown University, Providence, Rhode Island, under the direction of Nelson Francis. BC is exclusively drawn from printed sources published in 1961 and comprises 500 different text samples of about 2.000 words each, representing 15 different categories or genres (press, reportage, religion, science, fiction, humour, etc.). In all, the corpus contains approximately one million running words (see App 4). LOB was initiated by Geoffrey Leech at Lancaster University, England, and completed and prepared for computer analysis by Stig Johansson, Oslo University, and the Norwegian Computing Centre for the Humanities at

Bergen. It was designed to match BC and is consequently, as far as possible, comparable to its American predecessor as regards size, year of publication, and sampling principles (see App 4). LOB is available in the following versions:

1. magnetic tape for computer processing (LOB TAPE)
   a) printout (LOB TEXT)
2. running text
   b) microfiche (LOB FICHE)
3. KWIC concordance: microfiche (LOB KWIC FICHE)
4. word frequency lists: printed in Hofland & Johansson 1982 (LOB REVERSE)

Detailed information on the corpus is given in a manual (Johansson et al. 1978) and in Hofland and Johansson (1982). The latter contains a statistical analysis of the vocabulary in LOB — comparable to that of BC in Kučera and Francis (1967) — including alphabetical and rank-ordered frequency lists, word frequencies in different text categories, and (on micro-fiche) a reverse-alphabetical word list. Hofland and Johansson also contains a comparison of word frequencies in LOB and BC and is, in fact, a valuable source of information for comparative studies of British and American vocabulary

3.3 Mini and Midi corpora

For the purposes of ETOS, the two standard corpora — LLC and LOB — are generally too large and unwieldy to be investigated in their entirety. For this reason two smaller 'project corpora' were selected from the larger ones. They are referred to as the Mini and Midi corpora.

As the names indicate, the Midi corpus is larger (2 × 100.000 words) than (and includes) the Mini corpus (2 × 10.000 words), but both types are otherwise composed according to the same principles, viz to represent an equal amount of conversational spoken English (from LLC) and informative written English (from LOB).

The Mini corpus is intended for pilot investigations and other limited studies that do not require a large material, whereas the Midi corpus is better suited for more extensive studies.

3.4 Comparability

Something should be said about the comparability of the spoken and written material, of LLC and LOB. The two corpora were not originally designed for comparative work, but we nevertheless feel justified in using them for this purpose. The speakers taking part in the conversations of LLC are for the most part academics with a background in the humanities, and the non-fictional texts of LOB which are used for the purposes of the project

are precisely the kind of texts that LLC speakers might be expected to produce: ie. they are not examples of highly specialized technical or scientific writing but of a journalistic or essayistic type.

4. Current work within the project

Within ETOS, research is currently being carried out along the following lines:

Gunnel Tottie is working on problems of negation in English, especially
- the variation between the types exemplified by *He saw nobody* and *He did not see anybody;*
- the pragmatics of negation, especially factors conditioning the frequency and occurrence of different functions of negative expressions, eg whether they occur as responses to questions, as denials of previous statements, as rejections of offers, etc.

She is also working on
- the use of adverbials in spoken and written language, their frequency of occurrence, different functions (eg as adverbials of manner, time, etc.), and their different types of realization, as adverbs, prepositional phrases, or clauses.

Lars Hermerén is working on the expressions of modality in speech and writing, especially two problems:
- the extent to which modality is expressed by means of modal verbs and the extent to which it is expressed by other means the frequencies of different types of modalities and their expressions (eg Certainty and Belief, expressed for instance by *must* and *think*, and Necessity and Possibility, which may be expressed by *must* and *perhaps*, respectively)

Jan Svartvik is working on the relation between grammar and prosody, or intonation structure, and is studying especially the following phenomena:
- word-class distribution;
- the structure of grammatical phrases, eg the complexity of noun phrases and verb phrases;
- the structure and content of tone units;
- planning spans and hesitation phenomena;

Together with Mats Eeg-Olofsson he is also working on tagging, which is of considerable importance for the future use of corpora such as LLC. By 'tagging' is meant the assignment of lexical or grammatical categories to items in the corpus (eg. noun and verbs, subjects and complements) and the labelling of the respective items with the appropriate tag. If a corpus is properly tagged, it will be possible to extract information that is not readily available otherwise. A great deal of tagging has already been carried out within the project Survey

of Spoken English, and the system of tagging is described in Svartvik et al. (1982).

Within the last year, the levels of tagging have been extended and now comprise

1. Word-class (main verb, preposition, etc.), eg:
   'll ⟨VM+8⟩
   be ⟨VB+0⟩
   seeing ⟨VA+G⟩
2. Grammatical phrase (verb phrase with the verb in the present tense, plural noun phrase, etc.), eg:
   'll be seeing ⟨VPH: modal progressive⟩
3. Clause element (subject, complement, etc.), eg:
   I'll be seeing her ⟨S V O⟩
4. Discourse element (softener, greeting, etc.), eg:

I'll	*be seeing her*	*you*	*know*
x x		x	SOFT

This four-level tagging system is currently applied to the text, tone unit by tone unit, but it is envisaged that it will eventually be extended to include also adjacent tone units or longer sequences of tone units. For each level, Jan Svartvik has written a set of algorithms which have been translated into the programming language Simula by Mats Eeg-Olofsson.

For the word-class level, Mats Eeg-Olofsson has also worked out a method to achieve automatic word-class tagging based on frequencies of tags and tag combinations in tone units and on the identification of items by graphemic patterns, ie. the sequences of different letters which are characteristic of different word-classes. Thus, for instance. *—ion* and *—er* are typical endings of nouns.

For further information on the tagging system, see Svartvik and Eeg-Olofsson (1980), Svartvik et al. (1982) and Svartvik (1982).

Bengt Altenberg is working on a comparative study of logical connecters (*yet, although, so, therefore,* etc.). Using a sample of surreptitiously recorded conversation and a sample of informative prose, each amounting to c 100.000 words, he has so far examined three aspects of causal connection:

— the choice of connecter in the two samples
— the syntactic type of linkage involved:
  parataxis (clauses at the same level linked by an adverbial connecter);
  hypotaxis (clauses at different levels linked by a subordinater);
  clause integration (the connective expression is fully integrated as subject or complement in the clause structure; *the reason is, that's why,* etc.)
— the order of the related propositions (cause — result: CR order; result — cause: RC order)

In all, the material was found to contain 1.173 connective expressions,

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representing 66 different 'realization types'. Of these types, 58 were employed, in the written sample and 38 in the spoken sample. In terms of tokens, however causal connecters were almost twice as frequent in the spoken as in the written material. In other words, although overt expressions of causal relations were much more frequent in the spoken discourse, they were more stereotyped. This is highlighted by the fact that the subordinater *because* and the conjunct *so* together accounted for 79% of the tokens in the spoken sample, but only 23% in the written sample, which instead made greater use of *for*, *therefore*, *since* and *thus*.

The spoken and written samples were also found to differ slightly as regards the sequence of the cause-result relation, speech preferring RC order and writing CR order. A possible reason for this may be that the CR sequence, although it reflects a 'real world' ordering of causal events, requires a greater amount of planning. Since spontaneous conversation is typically unplanned, a postposed cause or reason (RC order) may be easier to process in impromptu speech.

Both the spoken and the written samples were found to prefer hypotactic constructions to paratactic ones, which were in turn much more common than clause-integrated expressions. The major difference between the two media was that, while the spoken sample showed a somewhat greater preference for the first two types, clause integration was on the whole more common in the written sample.

5. Other studies based on the project corpora

The following articles and term papers are based on written and spoken material from the LLC and LOB corpora.

In an article entitled "The missing link? Or, why is there twice as much negation in spoken English as in written English?" Gunnel Tottie has tried to account for the higher number of negations in speech. Studying the incidence of negation in spoken and written English in two samples of 50.000 words each, she found that negation occurred twice as frequently in speech. On the basis of a pragmatic theory formulated in Tottie (1982) she suggested that one plausible reason for the difference is the existence in conversation of two kinds of negation, rejections and explicit denials, which do not exist in written language, where only implicit negation occurs.

She tested the hypotheses by examining a subset of the 50.000-word spoken sample and found that explicit denials did not account for more than 16% of the total number of negatives in the three texts examined. The use of negatives in other speech-specific categories, such as direct questions, feedback signals, and imperatives, accounted for another 17%, etc. When

all had been accounted for there was still a gap of 16% that could not be explained.

Therefore Gunnel Tottie decided to pursue another line of investigation, namely the cooccurrence of negation with modal and mental verbs. It had been observed in other studies (Svensson 1981) that negative expressions tended to cooccur with both modal and mental verbs. Moreover, Chafe (1982) had found that spoken language contained a higher frequency of references to speakers' mental processes than written language.

In their term papers, two third-term students of English (A. Bengtsson and M. Bertilsson) showed that spoken and written samples had very similar proportions of modals and that modals occurred more frequently in negative than in non-negative sentences in both samples. These findings were consequently not very helpful. The findings with respect to mental verbs were much more favourable and showed that mental verbs occurred more frequently in spoken than in written language and also that they manifested a high tendency to collocate with negation. So, part at least of the missing link was found in the shape of collocations of mental verbs with negation.

Starting from Crystal's (1980) claim that adverbials are more or less necessary in conversational clause structure as compared with written sentences, where they have traditionally been considered optional, Ulla Hedling wrote a term paper on "The frequency of adverbials in written and spoken English". She limited her study to adverbials answering questions introduced by *When*, *How long*, *How many times*, *Where* and *How* in a sample of 10.000 words, half of which consisted of informal speech from the LLC corpus and the other half of equivalent texts from the LOB corpus.

Except for the general tendency in speech to avoid complexity, here manifested in a preference for one-word adverbials to noun phrases and prepositional clauses, she found that:

- there were almost twice as many expressions of TIME in spoken as written language. *When*-responses dominated, mostly realized by *now*, *then*, and *just*, or noun phrases, such as *this year* and *last term*
- PLACE adverbials occurred twice as frequently in written language and were mainly expressed by prepositional phrases, eg. *at Halidon Hill*
- MANNER adverbials were three times as frequent in written language, mostly expressed by adverbs in writing but by prepositional phrases in speech. The comparatively high figure for manner adverbials in writing may be explained by the greater need for clarity and fear of ambiguity in the written medium, where no interaction takes place
- DEGREE adverbials, especially premodifying intensifiers, were much more common in speech. The most common intensifier was *very*, followed by *quite*

Ulla Hedling concludes by saying that the somewhat higher percentage of

adverbials in the spoken material seems to support Crystal's theory to some extent, although her study is based on a very small sample indeed.

Another third-term student, Mats Johansson, studied the complexity of spoken and written language as it is manifested in the use of subclauses in two samples of 5.000 words each, one spoken and one written, from LLC and LOB respectively. In order to get his samples as comparable as possible he excluded clauses consisting of *you know* and *you see*, acting as conversational fillers, Q-tags, greetings, and broken-off utterances which only occurred in the spoken material.

Judging by the two samples he found two major differences between speech and writing with respect to the use of subclauses. One was that speech seems to use *that*-clauses with object function to a greater extent that writing and the other that writing seems to contain considerably more relative clauses than speech.

He tries to explain these findings. In the first case, it may be possible, he says, that the abstract reference to *that*-clauses is carried out differently in writing, eg. by a more frequent use of abstract noun phrases. In the second case, the difference may be due to a wish to avoid repetition in writing. He develops this further and suggests two possible explanations for the fact that relative clauses were almost three times as common in written English:

1. there might be more noun phrases in writing and therefore more opportunities for postmodification
2. the number of noun phrases may be the same in both samples but more complex in writing. If this is true and if it can be assumed that nouns are modified equally often in both samples, there may be a difference in modifying technique. Spoken language tends to keep main clauses short, which may be taken to indicate that nouns in speech are modified in a separate main clause instead of by a subclause, as illustrated in (slants indicate tone unit boundaries):

   a Stoke student has made a copy of the painting which/the painting's in Madrid/ I think/ it's not in London/ which seems to reflect that the speaker is choosing between postmodification with a relative clause and a less complex construction with two main clauses.

Mats Johansson's conclusion is that the tendency towards compactness and avoidance of repetition in written language does not seem to be matched in spoken language.

Drama is said to reflect real life and real characters. On this basis Zigmar Fritzon decided to investigate to what extent features that characterize casual everyday conversation were used to create the effect of real life conversation in drama dialogue. He studied such features as 1) softening connectives: *you know, you see, I mean, mind you, sort of* and *kind of*, 2) Q-tags,

and 3) minor sentences in four plays, two by Pinter and two by Ayckbourn, which he compared with two *LLC* texts. The plays were carefully picked out so that the language in the two samples corresponded, ie. could be described as educated speech.

He found that softening connectives were more than three times as frequent in the spoken sample, that Q-tags occurred about twice as often in speech as in writing but that minor sentences were more common in drama dialogue.

Among the softening connectives *you know* was considerably more common than the rest but occurred much less frequently when the speaker was talking about a subject in which he was well versed and had no need to pause for thought. In one of the texts a speaker employed numerous *you know* when talking about a delicate matter but stopped using the device when he was back on neutral ground.

Kind of, which is more typical of American than British English, was rare. *Sort(kind) of* occurred only twice in the drama dialogue but 31 times in the spoken texts. The reason for this may be that this device creates an impression of vagueness, undesirable in a drama dialogue which is supposed to give a clear picture both of the characters and the plot.

Referring to Crystal and Davy (1975), Zigmar Fritzon states that both *I mean* and *sort/kind of* indicate that the speaker assesses the conversation as informal. But whereas *I mean* expresses the speaker's attitude both to the listener and to what he is saying, *sort/kind of* rather expresses his attitude to what he is saying.

One of the functions of Q-tags, he says, is to keep the conversation going by ensuring active participation of the listener, but Q-tags and softening connectives often have the same function and are therefore often interchangeable.

As to minor sentences, the option to use *m* and *yeah* to express one's opinion is available in speech but is not used in drama dialogue, where adverbials, such as *quite*, *really* and *super* are used instead. Common to both samples was the omission of the subject.

Summing up, Zigmar Fritzon found that the realism of the plays could be detected in the language only to some extent. He found that if the drama dialogue had contained as many softening connectives as the spoken texts, this would have created an impression of disjointedness and non-fluency. The degree of formality in a drama is generally established early on, and consequently there is no need for softening connectives for that reason.

With respect to Q-tags, the dramatists succeeded in matching spoken language. Apparently, Q-tags are more accepted as a feature of speech than softening connectives. One proof of this is that they are much more extensively covered in grammars.

Finally, it is doubtful, he says, whether one should compare drama and natural conversation in terms of minor sentences; after all, written language is divided into sentences separated by punctuation, whereas speech is divided into tone units separated by intonation.

6. Concluding remark

The financial support of the ETOS project will come to an end in June, 1984, but work on speech and writing will be going on.

App 1. Composition of material in the Survey of English Usage (from Svartvik & Quirk 1980).

(I) Material with origin in writing (100 texts)

(A) Printed (46)		(B) Non-printed (36)		
Learned arts	6	Continuous writing	imaginative	5
Learned sciences	7		informative	6
Instructional	6			
Prose: general news	4	Letters: social	intimate	6
Prose: specific reporting	4		equal	3
			distant	4
Administrative & official material	4			
Legal and statutory material	3	Letters: non-social	equal	4
Persuasive writing	3		distant	4
Prose fiction	7	Personal journals (diaries)		4

(C) As Spoken (18)

Drama		4
Formal scripted oration		3
Broadcast news		3
Talks	informative	4
	imaginative	2
Stories		2

(II) Material with origin in speech (100 texts)

(A) Monologue (24)

Prepared (but unscripted) oration			6
Spontaneous	oration		10
	commentary	sport	4
		non-sport	4

(B) Dialogue (76)

Conversation	Surreptitious	intimate	24
		distant	10
	Non-surreptitious	intimate	20
		distant	8
	Telephone	intimate	11
		distant	8

App 2. Text classification of the London-Lund Corpus of Spoken English (LLC) (from Svartvik ar el. 1982).

TEXT GROUPS										
ABBREVIATION	BROAD DESCRIPTION	Subgroups	Dialogue	Face-to-face	Private	Surreptitious	Radio	TEXT LABELS	SUB-GROUP TOTAL	TEXT GROUP TOTAL
CON	Face-to-face conversation	A	+	+	+	+	−	S. 1. 1−14, S. 2. 1−14, S. 3. 1−6	34	
		B	+	+	+	−	−	S. 4. 1−7, S. 5. 8−11, S. 6. 2[1])	12	46
TEL	Telephone conversation	C	+	−	+	+	−	S. 7. 1−3, S. 8. 1−4, S. 9. 1−3[2])	10	10
DIS	Discussion, interview, debate	D	+	+	−	−	+	S. 5. 1−7, S. 6. 1, S. 6. 3−5[3]) S. 10. 8[4])	12	12
PUB	Public, unprepared commentary, demonstration, oration	E	+	+	−	−	−	S. 11. 1, S. 11. 4−5	3	
		F	−	+	−	−	+	S. 6. 6[5]), S. 11. 3	2	12
		G	−	−	−	−	+	S. 10. 1−7[6])	7	
PRE	Public, prepared oration	H	−	+	−	−	−	S. 11. 2, S. 12. 1−6[7])	7	7
			Number of "+" texts:							
			71	70	56	44	21		87	87

App 3. LLC TEXT A: Extract from the running text of LLC (subgroup A) (from Svartvik & Quirk 1980).

S.1.13

AS | SÌSTANT — [42] | couldn't ΔPÒSSIBLY■ [43] | have a WÓMAN [RÉALLY]■ [44] | being a DÉNTIST■ [45] it's [n] it's | not all that △ÈASY you SÉE■ — . [46] and | I said [n] | WÈLL■ [47] [ə] I said | well I △know that the EX'ÂMS are DÍFFERENT■ — [48] and that [ə] | if you ΔWÊNT to A'merica■ [49] you'd | have to ΔTĂKE a 'dental ex'am■ [50] be|fore you could ΔPRÀCTISE■ [51] but I said | Pam had '△several of △HÈR con'temporaries■ — [52] who | went ÒVER■ [53] to | either ΔCÀNADA or the STÁTES■ [54] in | order to 'make some△quick 'money to △come 'back and △set up 'on their △ÔWN■. [55] and | they had | didn't have any' △difficulty in' △PĂSSING ‹the› . the ex'am■. [56] so | Eileen was' VÊRY im'pressed■ [57] she | said 'well ΔYÈS■ [58] ‹she said› | that's ΔVÈRY interesting■. [59] [?] . | I ΔKNÒW■ [60] that | when . ΔPĂM had 'qualified■ [61] there were | very △FÈW women 'dentists in [A|MÈRICA■]■ . [62] and I | said well Δquite FRĂNKLY■ [63] a|bout a ΔTHÌRD of 'all the △[|DÈNTAL 'students■]■[64] in | ÊNGLAND • NÓW■• [65] | are ΔWÒMEN■ —

C [66] •|[m]■•

a [67] well it surprises me that Eileen should be surprised I can imagine Leslie being surprised but America — she must know that — lots of dentists who are women —

B [68] ‹remember› 'why SHÔULD 'she■ [69] cos she | hasn't ΔLÌVED in 'England NÓW■ [70] for — | thirty — . • 'odd YÊARS■•

a [71] •no but she lived• here for twenty years ‹4 sylls›

B [72] '|oh NÒ■. [73] there were | very FÈW■ [74] ‹you know [əm]› |VÊRY 'few 'women■ [75] [əm]. |you SÊE■ [76] |women △DÊNTISTS■ [77] in the |days when you △had to △PĂY■ [78] would |never have 'made a ΔLÌVING■ [79] because |NÓBODY would have GÒNE to a 'woman 'dentist■ — [80] it |was be'cause of the ΔSHÒRTAGE■. [81] '|why 'women are △so ac'cepted NÓW■ [82] |[?]is■ [83] that be|cause of the ΔSHÔRTAGE of 'dentists [in |ÉNGLAND■]■ [84] '|all the ΔSCHÔOL 'dental 'officers■ [85] | after the WĂR■ [86] | were — be|cause they were 'badly PÁID■ [87] | were the ΔWÒMEN■ [88]•|when they . |when they

a [89] •I'm quite I'm sure•

>B [90] QUÁLIFIED■• [91] |they be'came — ΔSCHÒOL 'dental ▷officers■ [92]• and |so ‹there was›•

a [93] •I'm sure there• was a school dental officer ‹who was› a woman when I was a child

B [94] | WÈLL■ [95] |we never ΔWÈNT to school 'dental 'officers■ [96] so I | wouldn't have ΔKNÒWN■ [97]•but they |wouldn't have•

a [98] •well neither did I • but you just got done ‹I mean›

App 4. The basic composition of BC and LOB (from Hofland & Johansson 1982).
Text categories A—J = informative prose
H—R = imaginative prose

	Text categories	Number of texts in each category	
		American corpus	British corpus
A	Press: reportage	44	44
B	Press: editorial	27	27
C	Press: reviews	17	17
D	Religion	17	17
E	Skills, trades, and hobbies	36	38
F	Popular lore	48	44
G	Belles lettres, biography, essays	75	77
H	Miscellaneous (government documents, foundation reports, industry reports, college catalogue, industry house organ)	30	30
J	Learned and scientific writings	80	80
K	General fiction	29	29
L	Mystery and detective fiction	24	24
M	Science fiction	6	6
N	Adventure and western fiction	29	29
P	Romance and love story	29	29
R	Humour	9	9
Total		500	500

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